# SI649 Individual Project Communicative Visualization

Fall 2021

The individual project is focused on communicative visualization. For this year, we have selected the article "I called this place 'America's worst place to live.' Then I went there." There are numerous interesting bits in this article that could use visualization support, but no visualizations are included! There are also many good datasets for you to utilize and also opportunities for you to expand the scope of the article (e.g. What's great about Red Lake County? What is good about Red Lake's economic outlook, etc.) Your job will be to design visualizations to accompany the article (or an expanded version of it).

The project will have two parts.

- A static version (due Friday, October 29th) -- The first part will be a static version and a short report ('blog entry') explaining your design decisions and process.
- A dynamic/interactive version (due Friday, November 12th) -- This second version will be an interactive page delivered on the Web, a short video showing your interactive vis in action, and a short report ('blog entry') explaining your design decisions and process.

## Red Lake County

The backstory for this article was that Chris Ingraham (the journalist) for the Washington Post wrote an article trying to find the absolute worst place to live in the United States. He came up with an answer: Red Lake County in Minnesota (image on right from the Washington Post). You can read the article about it here: "Every county in America, ranked by scenery and climate." [Canvas pdf link] As you might imagine, the citizens of Red Lake weren't so happy with this. They invited Chris to visit, and while he was worried for his well-being, he went.

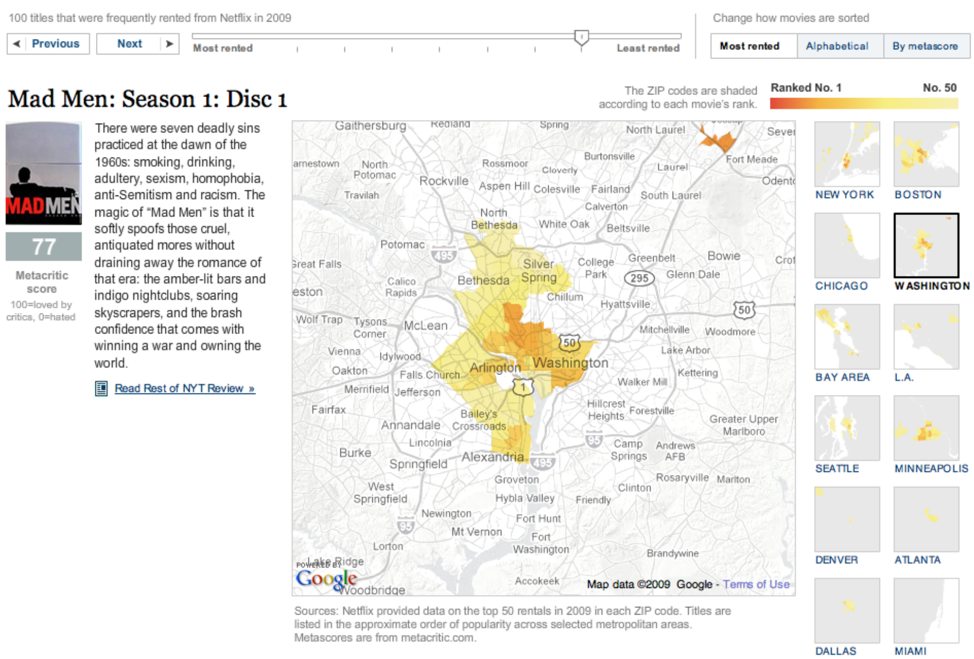

After his visit he wrote the article: "I called this place 'America's worst place to live.' Then I went there." [Google doc link] [Canvas pdf link] This will be the article you'll be working with. We would like for you to focus on creating visualizations for this article. There are both large and small "data" insights in the article and many of them would benefit from visualizations. While we don't want you changing the article, if you find something super interesting (like data that Red Lake has the most delicious Ice Cream in the country) you can create a "sidebar"--a little mini article on the side with that information/visualization (see examples at the end). That said, you may contrast the visualizations/data in the first article with the second. We would like for you to leave the content of the article relatively unchanged.

In case you're wondering, Chris liked Red Lake so much he moved his family out there and has been living there since. He wrote a book about it: *[If You Lived Here You'd Be Home By Now: Why We Traded the Commuting Life for a Little House on the Prairie](#)*. The book is hilarious and I highly recommend it: you'll learn lots of interesting data about the US, but also why dog poop and frozen yards don't mix. But you don't need to read the book for this project.

## The Visualizations

Again, we're looking for a static and interactive solution. You may develop both versions together so there's a consistent look and feel, but you're also welcome to have two very distinct efforts. There are examples from last year's class that are linked at the bottom of this document.

For an example of a consistent look and feel you can take a look at print edition: https://www.snd.org/wp-content/uploads/2010/01/nyt-netflix-print.jpg. The interactive version requires flash, so here's a screenshot:




We do not have any specific guidance on the number of visualizations you create. If you build something complex (e.g., https://us.gestalten.com/blogs/journal/visualizing-a-new-new-york-times) one visual is likely fine. If each sub-visualization is simpler, you should think about using more elements (https://www.webdesignerdepot.com/cdn-origin/uploads/infographics_maps/maps-12.jpg )

## Blog Entry

For both the static version and the interactive version you should create a blog entry about your design process (one for each). **Take a look at the rubric for more info**. We'd like for you to walk us through your design. Things you need to explicitly cover:

1. Your learning objectives (2+). You can use the visualobjectives.net site to help you design these. Remember, these are objectives for your design *after* the person has viewed it and it was taken away. For example, we **don't** need to know what the viewer will be able to "read" but **do** need to know what they'll remember.
2. Your design process. *What did you try? (screenshots please) What examples did you look at for inspiration (again, screenshots)?* We expect that you iterate over multiple sketches/designs before you arrive at your final solution. You should describe what you liked or didn't like about your design.
3. Why do you think your final design is good? You should explicitly connect to principles you learned in class (design, perception, cognition, interaction, etc.)
4. How you would assess/evaluate your design (you don't need to implement this assessment, just describe how). Consider your learning objectives but also the nested model (we'll learn about this in the "Evaluation" week).

We say "blog" because this doesn't need to be super formal like a paper. Here is an example process blog: [https://www.visualcinnamon.com/2019/04/designing-google-cats-and-dogs.html](https://www.visualcinnamon.com/2019/04/designing-google-cats-and-dogs.html). There's more on the data processing here and clearly nothing on learning objectives, but hopefully this gets you thinking.

## Deliverables

You will be turning in:

- Static version:
    - A high resolution image or PDF of your vis. For this you have a choice: (1) You can create a large infographic either using full page format (roughly 9" x 11") or spread (roughly 18" x 11"): [https://nytmediakit.com/nytmag-guidelines](https://nytmediakit.com/nytmag-guidelines); or (2) You can embed your visualizations into the article itself as we've seen with some of the 538 articles (e.g.,https://fivethirtyeight.com/features/the-dollar-and-cents-case-against-hollywoods-exclusion-of-women/). You can find a [Google Doc version of the original article here.]()
    - A "blog" entry describing your report

- Interactive version:
    - The code to your site and instructions on how we can run it (you can *also* give us a URL if you are hosting it yourself). You can use Streamlit, Tableau, etc. (we'll give you more information about how you can deploy these soon). But you're also welcome to use D3, Idyll, or whatever else you want. You must include

interactive elements in the site that support the communicative nature of the visualization.
  - A video walkthrough of your interactive visualization (1-2 minutes is fine)
  - A separate "blog" entry for your interactive version

## Rubric

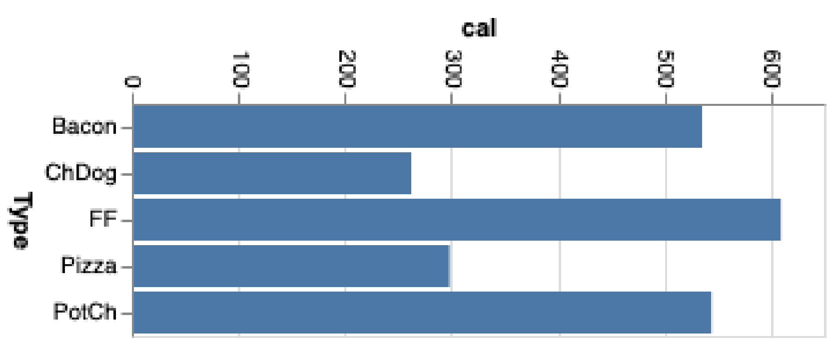
For both deadlines, we will be looking at:
1. How good the visualization implementation is (functionally and aesthetically)
2. A good blog entry (clear demonstration of design iterations, good justification for design choices using course principles)
3. How well you fulfill the learning objectives you define
4. Sophistication of solution
5. Creativity (this last one falls more into the "bonus" category--a creative but non-functional vis isn't a good idea).

You can also view the rubric we will be using to grade on Canvas underneath the assignment details.

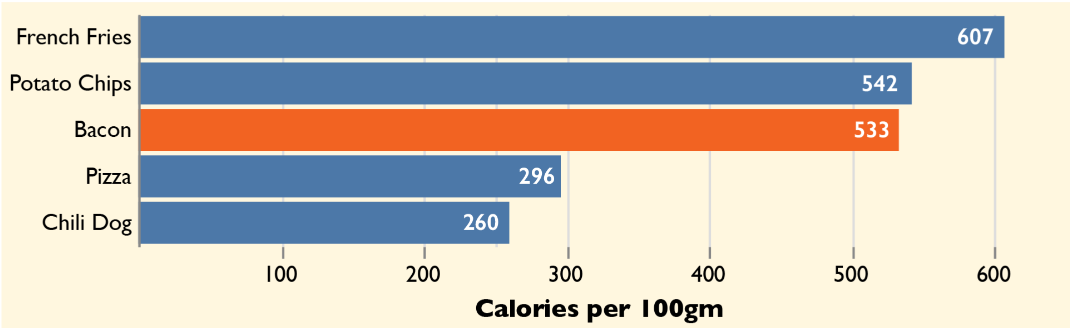
There are examples of the work people did last year that are linked at the end of this document.

## Aesthetics and Style Guides

It is important that the final results have both function and form. That means the visualization should *look* good in the end. We expect you to modify the output of the tools you use for creating the visualization. You are welcome to develop this using any software (we suggest using Illustrator, Figma, Inkscape, or even Powerpoint). For example, let's take a simple vis of calories for different types of food made by Altair. This was supposed to go in an article about why Bacon actually wasn't the worst thing for you.

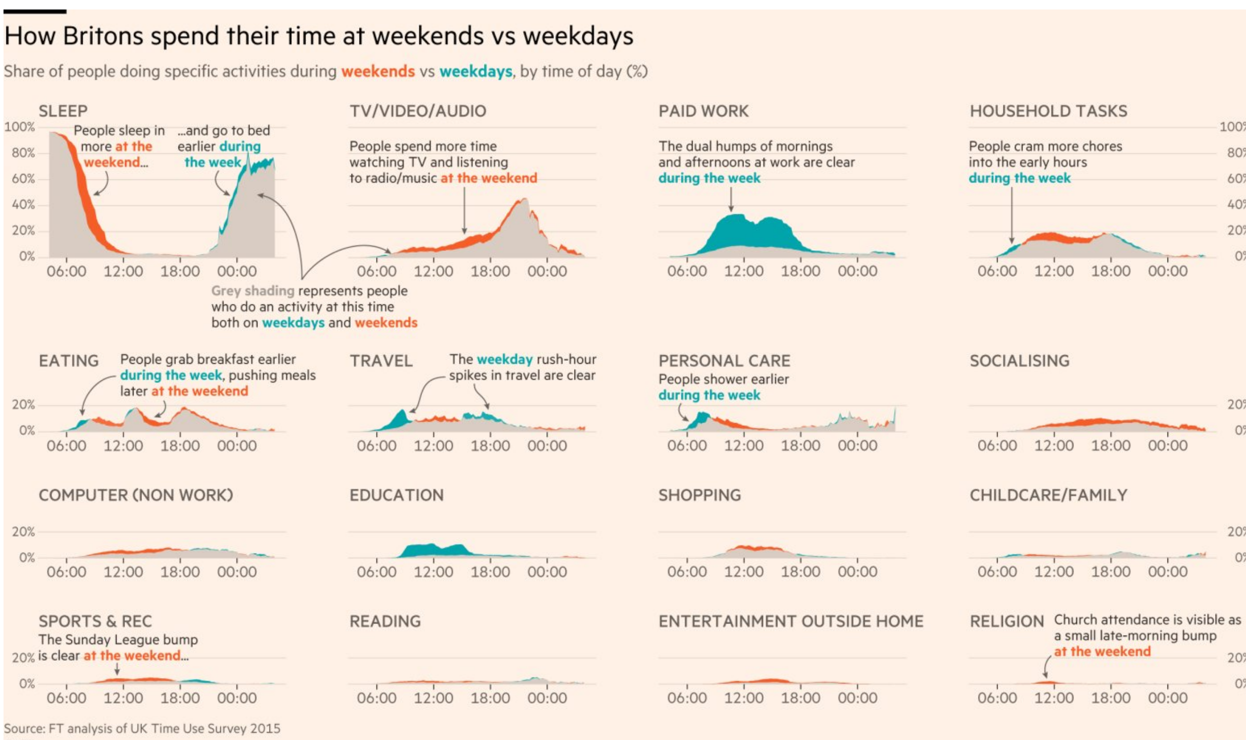


Instead, I took the vis and loaded it into Illustrator and made some changes:




This was based on the style *I* wanted for the article. I had a specific font, colors, etc. in mind. You can make your own or [follow someone else's style](#).

How you annotate and make things salient will be key here. See this example from the Financial Times:




If you are creating an infographic style layout, you should consider where you place things, how they connect, etc.  If you are confused about this, take a look at the [Makeover Monday community](#). They take "bad" visualizations and infographics and propose various improvements (for example, [this one](#)).

There are examples of the work people did last year that are linked at the end of this document.

## You are a Data Journalist

A short word of caution: you are a data journalist for this exercise. You have two roles. The first is as an analyst. Here, you should find interesting things in the data (some we've already given you in the article content). The visualizations you use to find interesting things should not be your final deliverable for your second role: a communication designer. Only use/create those visualizations that are important to your learning objectives. Remember that the viewer did not go on your exploration trip with you (nor should they!). Don't assume they know everything you've seen/tried and definitely don't assume they are interested in all the visualizations you experimented with.

## Peer Review

We will also have peer reviews as intermediate deadlines so you can show off your progress to a few of your peers for feedback. This will happen the week of October 18th for the static version and the week of November 1st for the interactive. During peer review you do not need to present finished ideas but you should at least have a sketch of what you're up to. We'll be sending an announcement about this soon.

## Past Examples

You can find examples from last year here:
https://umich.instructure.com/courses/462749/files/folder/commvis%20project/norway_samples

The article last year was about why Norway wins lots of gold medals in the Winter Olympics despite being a small country. These visualizations are not necessarily perfect, but they picked interesting learning objectives and executed them well. We've also shared two videos of interactive solutions. One uses Streamlit and the other is done in Tableau.

## Data Please?

To get you started, here are some datasets. You are not obligated to use all (or any!) of these.

Worst Place to Live in America

- Natural Amenities Scale for U.S. Counties
  https://www.ers.usda.gov/data-products/natural-amenities-scale/
- Unemployment Rates https://www.bls.gov/lau/
- Harvard's Equality of Opportunity Project https://opportunityinsights.org

Feel free to find more datasets and you're more than welcome to share your finds with others!

# Inline vs Sidebar

Below, you can see the difference between an inline image (left) and a sidebar (right). A sidebar is a “mini” article.