The design theme this week was lines. In particular, how to organize many possibly overlapping lines so the paths they form are readable.

To tackle this challenge, I drew inspiration from highways and roads.

To illustrate, consider the four maps at left. All are of the same section of Chinatown (San Francisco), with a thick thoroughfare running horizontally down the center. Two people (blue & green) could take many different paths to reach the yellow star on the right. Some routes are more roundabout than others, and some more often use the thoroughfare.

If the thoroughfare is the fastest road, then the map at bottom-right would be the best. What's interesting is that the paths in this map are also the easiest to compare, partly because of how much they line up with each other and partly because they're so simple (they have only one turn).

Also notice how the routes take up space. In the first three maps, the routes take up more horizontal *and* vertical space around the center. The chance that a new line will overlap in them is much more likely.

This general idea, to prefer highways like we do in real life and like in the bottom-right map, is how lines were organized in this week's d3.js prototypes:

1. Paths coming from the same source should flow in the same direction for as long as possible.

2. Paths coming from or going to the same location should stick together for as long as possible.

3. Paths should be as simple as possible with the fewest turns.

When these principles are applied, "highways" (clustered pathways) emerge, making a complex network diagram like the Battle in the Mind Fields poster much easier to read.