BitFarm

J. Benjamin Cook, Ryan King, Charles Hornbaker, Conor Myhrvold

Group Feedback

Notes from peer review feedback, 3:00 – 3:40 pm April 8, 2014.

Federal Government Agent Collaboration. Neil McQuarrid.

A better better life index. Jennifer Campbell, Crystal Stowell, Annie Yang.

Throughout the course of our conversations with the above groups, we received the following feedback worth clarifying and noting. The issues are in bold, and how we will address them is below. We've also categorized the feedback in context with the Feedback Guidelines, outlined in the Design Studio Instructions. Feedback we received suggested that the General Questions were satisfied, as were most of the other questions. However, we will highlight specific critiques of the Visual Encoding and Interaction and Animation which we will address now, and in code in the Project Milestone we will complete shortly.

This question was when we showed the corn yield visualization and showed how it worked.

Does this distinguish between corn that's sold as produce vs. plow fields? That will also affect prices.
No – right now of components of the corn yield all bundled together right now. We don't have more granularity (or rather, we can't see to a finer grain than we do now.)

These two questions were about how we plan to implement one of our brushes when looking at yield information, with the prototype we currently have in place.

If you brush over a 2D area, it shows the distribution over that histogram?

Eventually we aim to make it so that the user can sub select to the map itself, and sub-select counties, and to their farm. So they can select whatever area, and the histogram will show the distribution of corn yield over that area (which is not an irregular polygon drawn on the fly, but a predefined geographic area like the extent of a state or country, or an individual farm.)

And you could select multiple counties maybe, so you can aggregate it?

Yes, the idea is that a farmer can select his or her farm, area, or whatever selection he or she chooses. See above answer.

This question was about the audience utility from the way we plan to connect our visualizations.

It seems like the connection between the two visualizations also seems selected on a stratification basis? If your audience is a land owner, it seems like learning about the soil profile is interesting but to what extent is that useful, from the farming perspective?

One thing farmers will pay for is a soil map. This is one step further than that… but afterward it's true that there's not much that you're going to do with it. Another thing we could look into, is pulling out characteristics of soils but not something we can necessarily include. So, we'd qualify this feature as an optional one, which is nice to have, but soil profile in and of itself is not a cornerstone metric that we are after visualizing. It's a side dish; not the main course.

This question was about the soil type brush, a different brush we're building.

How did you say the histogram would change – like I know you could brush over it, but if you click on a soil type, what would it do?

We'll have sub-bins, to show what percentage is that soil type, or alternatively display as a pie chart. The soil type will infer what crops are suitable to be grown. This is unlikely to be information the farmer wouldn't already know, but it will be a convenience having this on the visualization dashboard for other people; or at the very least stored with the rest of the information about the farm.

These questions were about clarifying what our datasets are.

So different datasets you're using – corn yield, and what else?

Crop yield national and local scale, are very different data sets. One comes from the tractor; the other is survey data from actual farmers in the county. Then there's the soil data from USGS (US Geologic Survey). Then climate data from NOAA (National Ocean and Atmospheric Administration) and US weather stations. Commodity prices will come elsewhere; there are a variety of sites which could have crop futures. We'll make a point of spelling this out in the Process Notebook.

Are the yield datasets, at the micro and macro level, agreeing?

We only have from a few local farms, due to lack of interest in sharing competitive information, on the part of the farmers. We'll probably put more effort into national data, to the general public, than a farm, given the scope of this project, which can do things like show changing corn yield over time.

Just curious, but say someone does want to drill down to the county level, and they use the micro data, does it show if it *doesn't* line up, if there are gaps between local and national data?

What's tricky, is that once again, framers are private and secret with their data. We can't get yield data from every farmer. So this would be a nice thing to have, and technically feasible, but not politically so.