Quinn attended BPViz, support from various entities (e.g., NSF), to try and broaden participation in visualization. Some discussion of the filters that happen in earlier education, math, etc. Interesting perspective on stumbling blocks that students go through that keep them from careers like this, but more concretely about spatial perspectives.

Who was at BPViz? Free registration and travel for accepted applicants. Lots of technical staff like Quinn attended, perhaps with same goal of assessing how to provide visualization services.

Tour of Envision Center at Purdue, demonstrating different examples of visualization and use cases. Lots of examples that are very engineering-oriented.

Poster session: People experimenting with setups, some less expensive, some more mature that are now needing to address governance issues.

Day 2: At NCSA, for hands-on training, more rote approach to demonstrating how to use a powerful tool (VisIt). Houdini training, based on a tool used in Imax movies.

NCSA’s Advanced Visualization Lab: Lab director Cox shared interesting stories from two decades of work in this field. Her background is in art.

Opportunities:

Hardware: Berkeley is behind the curve right now as more universities are opening centers and providing services

Software: Hard to identify any core set of tools; complicated by rapid evolution in a fragmented software market. Especially an issue for 3D modeling, for decades no standard for software, file formats, authoring.

HPC: Faster rendering matters.

Information literacy & data ethics: Training students to be critical. Have them question data and visualizations.

Discussion:

Where is there existing capacity and interest on campus?

What kinds of support would play to our strengths?

In what areas do we need to develop additional capacity

Are there areas we can deprioritize?

What group(s) are looking into improving support for viz? How can we coordinate our efforts?

JL: We use metaphors now for “going” to a site, “opening” a page. We don’t seem to have those metaphors yet for visualization environments. The notion of visualization as a concept is not well thought out yet (making non-visible data/information visible).

PS: There has been more work on 2D visualization. 3D stuff is flashy, but we should remember that there is still a lot to gain from 2D.

There are example of visualization resources that haven’t been successful and are now being shut down or repurposed.

Technology and tools are simplifying the process, but is that the tipping point?

For Rita Lucarelli, her research requires 3D, so it’s about more than the technology and about making something neat to look at.

What is the bonus of 3D? Is it just a fancy tool? Or does it meet your analytical and pedagogical goals? Lynn Cunningham: Art History incorporating this into research and instruction.

UC Merced has installed a wave facility, and RIT will be learning from that in order to help Hearst Museum of Anthropology with their upcoming facility that will be housed in their exhibition facilities.

Justin Underhill, a DH post doc, has done work to reconstruct objects and architecture in context, e.g., Mayan temples, or the house posts at the Hearst Museum.

Visualization is very broad. HR is visualizing staff metrics, and is interested in the point that the narrative design aspects are important. Right now people learn those anecdotally and from experience, e.g., just throwing data into Tableau. Impact is very important. Lots of what they do is intuitive. Tools are expensive.

Info viz classes on campus: Is there a way to leverage the power of those? How about providing a clearinghouse for projects that need students and students from for example I School who are looking for projects?

VisIt and Paraview are two major scientific vis tools, supported on Savio.

What does it take to make a viz service or resource successful? There are plenty of examples of failure. Success seems to follow some familiar patterns: having use cases/drivers, strong engagement, instruction/orientation, etc. If it is just technology, users won’t necessarily come. Little design issues can matter.

What is the difference between the experience of the cave/wave vs. Oculus rift?