Exploring Visualization Services for UC Berkeley

Research IT Reading Group
November 30, 2017
Thanks for coming today!
Goal for today’s discussion

To foster a set of community-based discussions about visualization technologies and services ...

... so that together we can have a significant impact on research, teaching and learning at UC Berkeley
Why is a community approach the best way forward?
What do we mean by “visualization”? 

Across and between disciplines?
In terms of technologies?
In terms of services?
What do researchers, teachers and learners need?
Some examples of visualization
HearstCAVE

An immersive visualization environment for UC Berkeley
Visualizing Digital Scholarship

Immersive Scholar: Announcing Our Partners

Our PIs: Larry Conrad (CIO) and Cathy Koshland (Vice Chancellor Undergraduate Education)

“... to develop extensible models and programs for the creation and sharing of digital scholarship in large-scale and immersive visualization environments.”
Goals of UCB’s participation

- Partner with the Library and additional campus museums to develop more UCB content
- Keep developing the student team
- Improve software and workflows (Jupyter notebooks, use of HPC cluster, virtual desktop)
- Develop display capability in CollectionSpace portals
- As a community, address issues of preservation, copyright/license issues, RDM, accessibility
Visualization in the “sciences”

Is visualization something different in Data Science?

Is visualization mainly about building effective figures?

(How) Is visualization in Matlab different from visualization in Tableau?

Reading: “Scientists need data visualization training”

BIDS Figures Group now forming
Information Visualization

Is Information Visualization significantly different from Data Visualization?

Information is Beautiful
Virtual/Augmented/Mixed Reality

http://vr.berkeley.edu

http://augcog.berkeley.edu

VIRTUAL REALITY @ BERKELEY

Center for Augmented Cognition
What about geospatial visualization?
What else is happening on campus?

- [http://dataviz.berkeley.edu](http://dataviz.berkeley.edu)
  - Partners
- D-Lab Trainings
- ...
- ...

What else is happening beyond UCB? (e.g., at other universities and other kinds of orgs)

- ...
- ...
- ...
- ...
How do we characterize viz in different fields?

*With apologies for this categorization (always a flawed but necessary activity)*

- Humanities:
- Social Sci:
- Physical Sci:
- Bio Sci:
- Chem:
- Engi/CS:
- (continued next slide)
How do we characterize viz in different fields?

With apologies for this categorization (always a flawed but necessary activity)

- Law:
- Business:
- Public Health:
- Public Policy:
- Social Welfare:
- Env Design:
- ...
How then do we define visualization? Do we need to?
Can we visualize an n-dimensional framework?

Domains and communities

Tools (software & infrastructure)

Training, consulting and support

With apologies: Those are categorical dimensions, not continuous variables
What are some steps we can take together?

Or separately for that matter

• ...
Thanks for coming!

Let’s talk more about viz in 2018

chris.hoffman@berkeley.edu

dataviz@berkeley.edu