February 10, 2022 Joint Methods & CI Working Group Call

Methods/CI January 13, 2022 Notes HERE

Attendees: Libby Mohr, Matt Brousil, Jody Peters, Leah Johnson, David LeBauer

Agenda/Notes:

1. Visualization/Decision Support Tools, User Interface Task View Updates and Next Steps
   a. The following are things Jody wanted to check in as she went through the text
      i. What to do about the Concepts/Principles section. Jessica Burnett put in a number of ideas, Jody has worked to incorporate them, but is still working through this section
         1. Not sure what the purpose of this section is.
         2. Do we want to change the
         3. Principles are useful, but these don't go necessarily seem to go together. Principle of visualization and principle of accessibility is different
         4. Trying to put too many things together
         5. What is your goal - basic ideas of
         6. Then link to tools below
         7. At the beginning of "How to Make Visuals" - start with discussion of what makes a Good Visual
         8. Compare what the document has with what is in the Concept section and see if there are things that should go at the beginning of the sections
         9. User interfaces section is really short - think some of the info in the Concepts section should go down here
         10. Keep Accessibility near the top. Don't want that to get lost below. Remind people of accessibility issues .
         11. Interactive concepts to go down further
         12. Jody take first shot at updates then send to Matt
      ii. Bibliography and references. Currently it is a separate document. Should we include it in the Task View so people can add to it that way?
         1. Bring in the Social Science group to look over the concepts in this Task View
         2. Do we want to focus on tools more than the concepts? We want to include the concepts but don't reinvent the wheel, instead point people to the resources
      iii. Environmental Decision Support - Put this back to the bottom of the doc in section 10. Could put it as an intro to the Decision support section and add some citations. And drop the "environmental" part.

1. No one on the call is familiar with this, so see if Melissa or someone else in Social Science can help with the intro.
iv. Making Visuals Section
    1. How to use Spreadsheets for data curation and for visualization
v. Matt's comment on density plots - done
vi. Update on examples (think on the January call, HOPS was still in the works?)
    1. Still planning to work on HOPS
vii. Animate section Tools: there is a bullet for "SVG-based animation tools?" do we have any tools to add for SVG?
    1. Check with Cee about SVG
    2. ImageMagick - Matt saw a couple years ago about a security issue.
viii. Need a brief intro about what about Interactive and Reactive Features are
    1. Libby could work on the Interactive Features and see if Josh Cullen can help look over a draft
ix. Need links for the Interactive and Reactive Features tools
x. Remove WebGIS from the table
xi. Geospatial Visualizations section - think the introductory and file format text under the Static section can be general information for the Geospatial Viz section and then focus on the tools for the Static section
    1. Have section on types of plots in the Static Visualization section - do we want to do something similarly here?
        a. Plotting with vectors
        b. Plotting state level factors
        c. Faceting to put plots at each state
        d. Describe ggplot as xy with color.
        e. Heat maps, scale points based on third variable, categorical coloring of shapes/polygons
        f. David and Matt to work on adding this information
xii. Need short description of Static and Interactive Geospatial Visualizations
    1. Ping Kelly on this
xiii. What did we decide to do with Uncertainty Visualization? Should we make it it's own section?
    1. Yes
    2. Have something about uncertainty in mapping - Leah will add that
xiv. User Interfaces and Dashboards - need this section to be fleshed out
    1. Decision Support / Decision Science tools Section has a number of tools, needs some introductory text
    2. Connecting Dashboards to Models Section - needs details added

2. Uncertainty Quantification & Propagation, Modeling & Stats and Workflow Task Views to use as Reference: https://projects.ecoforecast.org/taskviews/

3. Jody is leaving in as a placeholder. This would be good to discuss when Mike is able to join the call. Any more gaps people thought of in response to Mike's prompt for the November call?
    a. Mike's prompt: Discuss next steps beyond the current task views (2 done, 1 in progress, 1 on deck). In particular, I think we've completed enough of the task views that we could have some useful discussions about identifying gaps and bottlenecks in current methods and tools and ways we might think about moving forward on identifying and addressing those (e.g. surveys, workshops, hackathons, group projects, virtual panels / webinars, etc). This is also motivated by some recent interagency (NOAA, NASA, CDC) roundtables that EFI has been sponsoring where standards and community CI are emerging as priority items for the federal agencies (caveat, that doesn't mean there's any funds). It is also relevant to the next round of the EFI NEON challenge and the upcoming EFI2022 "all-hands" conference

4. Data Ingest, Cleaning, Management
    a. Placeholder until we are further along with the other Task Views or have an identified leader for this

5. NEON Ecological Forecast Challenge CI Update