July 18, 2023 Translation Working Group Call

Attendees: Charlotte Malmborg, Chris Brown, Clifford Duke, Jody Peters, Alison Gerken, Michael Gerst

Agenda

1. Follow-up to the priorities identified for translation needs on: Helping colleagues find collaborators across disciplines (i.e., matchmaking) as well as providing guidance on what makes a fruitful multi-disciplinary collaboration
    a. 3 tasks identified on the April 25 call
        i. Compiling list of funding opportunities for cross-disciplinary work or work requiring end users or stakeholders. **Leaving this link in here as a reference for people to add funding opportunities as they find them**
        ii. Exploring types of databases to use for matchmaking.
            - Chris/Jody need to follow up with Lori Peek about CONVERGE and SSEER
                - https://converge.colorado.edu/research-networks/
                - https://converge.colorado.edu/research-networks/sseer/
                    - Map: https://converge.colorado.edu/research-networks/sseer/researchers-map/
                    - Annual Census reports: https://converge.colorado.edu/research-networks/sseer/sseer-census/
                    - Other publications: https://converge.colorado.edu/research-networks/sseer/sseer-publications/
                - **Next step with Lori for the group**
                    - Send her an Agenda for that follow-up call about a) things you want to share and b) things you want to ask!
                    - Here is a Google doc to add Agenda items for the call
                    - Suggestion from Kira about questions for Lori and Thriving Earth Exchange - How did they decide what to ask on their intake form?
                    - How do they know if it is working?
                    - How much are people using it
                    - How do they measure success?
                    - What is the saturation rate?
                        - For example, if there are 10 people making a connection a year is that enough to warrant the work that is done

- Questions about scale
- Does Kira have any input about how much work do we want to put into this? Cost:benefit analysis
  - Looking at databases - which would be a lighter lift? If there is lots of engagement
  - This isn't the only way people can connect through EFI.
  - Want to prioritize to make it convenient for people
  - Start with something easy and straightforward
  - From survey development experience - want it to be short and useful
  - Does Lori's group know what people are clicking on? Do they put out the resource and know or don't know how the group uses It?
    Could I find a potential collaborator? Could I find someone to
- What is the database that underpins Thriving Earth Exchange?
  - Jody sent Melissa Goodwin an email to see if we can make a connection either via email or a short Zoom call to learn about
    - The nuts and bolts of the process TEE uses for matchmaking. Is there a specific app or program you use to keep track of your database of communities, scientists, and project managers?
    - What TEE has found works best to make the most productive matches?
      What TEE has noticed in cases where matches may not have worked out?
    - If TEE has specific questions that has worked best to allow you to make the most productive matches?
- Kumo.io update - Jody had another call with Josh Kumin who helps manage the [Colorado Stem Ecosystem] (CSE) Kumu account. Josh shared the system that they use which is based ona Google form that collects information and then transforms it into Kumu's system to show connections. We can use the CSE template, but the key thing for the group to decide is what are the questions we want to ask to build the connections on? What connections do we want to visualize?

iii. Do we want 1 location for EFI membership and opportunity to connect?
- Have 3 ways we think of people connecting to EFI
  - Membership

- Coffee chats to learn
- Joining the matchmaking database - connecting scientists

- Do we think people will join the matchmaking who won't be members?
  - Jody can see it both ways. 1) Ideally there would be EFI members who would want to connect. But 2) we have long talked about wanting to support more connections with social scientists in EFI and we don't have that right now. So could imagine a situation where we are allowing social scientists to see what people in EFI are working on and promote those connections and then encourage those social scientists to become EFI members.
- Moving forward we will want to consider is it an opt in to be an EFI member or opt in to the matchmaking database?
  - Jody thinks that we should keep the two separate, but provide a link from the members application to the matchmaking database so people can do that in one place. However, we will also want to allow people to sign up for the matchmaking database separately in case they do not want to become members. **BUT it will be good to talk through what that means and how it would work.**
- Currently there is no way to directly email someone in EFI that is listed on the members page.
- Would be nice to have a "contact this person" option on the EFI website to allow people to share emails
- If I'm trying to find someone after hearing about EFI - would go to the EFI members page to see who I would want to talk about then Google for emails
- Think this is fine for getting emails for academics and gov't but it is hard to get emails for people at NGOs
- Government email is pretty easy to find. Academics outside of the US are sometimes difficult to find an email address
- What information do you want for everyone, what info you want for EFI members, and what info for EFI members
- **Next steps: learn what we can from Lori and TEE and then think about what we would want in an intake form to look like. What kind of information would we want to have in a matchmaking database?**
  - **Also, define success - do we continue pushing for a matchmaking database or not. Is it worth developing the database?**
  - Kira put notes in the Google spreadsheet about matchmaking - added a new tab for fields to collect for matchmaking. The group should feel free to modify

iv. Hosting a virtual event (target for first event is this fall, but thinking to host 2 calls a year). This virtual event will allow people to share half baked ideas and explore people who may be interested in fully cooking/proposing ideas.
   - ***Action Item for the group*** **-** continue to discuss details about purpose and structure, who will facilitate, advertising/inviting participants, and connecting with the work on the tutorial about decision making.
   - Jody is leaving this on the Agenda, but we have paused focusing on this while we discuss the matchmaking databases above and the tutorial below.

2. Tutorial about how to collaborate and communicate across disciplines. How to understand stakeholder decision making processes?
   a. Archetype for the tutorial: modelers/physical scientists looking to connect with social scientists, decision makers, stakeholders, end users
   b. What do you think would be most useful for the community to know about the decision making process?
      i. Recap from Mike/Jody/others about the Unconference
         - Mike spent half time with the group who are thinking about remaking the dashboards for the NEON Forecasts (https://projects.ecoforecast.org/neon4cast-dashboard/phenology)
         - Time was spent thinking about how the dashboard would be used. Expect that it will mainly be used by people who are creating forecasts and analyzing their forecasts
         - Mike spent the other half of his time with the group thinking about structured decision making, adaptive management, and the forecast cycle (proactive steps toward decision ready forecast working group). What this group talked about seemed more connected to what the Translation working group has been thinking about
         - Got the sense that people thought the process of connecting decision making and models is cleaner than it is. Having something in a tutorial that gets into the messiness of what the process is would be good so people don't think it is quick and clean
         - For example - if you are working with someone from the beginning of a project and are thinking about what their concerns are or what they are working on, you won't get the full story until you show results because there are things that may not get fully articulated at the beginning of the project. So after you share the results and get feedback you'll realize you haven't addressed or included everything that was important to include
         - Illuminating unexpected feedback during the engagement process.

- Preparing modelers that it won't be a linear process. Their model will affect the decision maker in ways they don't anticipate so there will be feedback in the learning process.
- Articulate in the tutorial that understanding what you need is not a straightforward thing
    - Would be good to have an example of this as well for the tutorial
    - Find ways to make it participatory. Example - making decisions about dinner, choosing a university
    - Having both sides indicate the problem or the decision maker share the problem which can help the modeler know how to get to the problem

ii. Notes from Jody about discussion with the Impacts working group (Jessica's Burnett's group)
- EFI has a website to show forecasting projects. The currently goal of the page is to show that there are a range of different types of forecasts and to allow people to explore these forecasts in more detail.
- Would it be useful to update these project examples to show the community what people are doing? What kind of forecasts are being created?
- What information would be useful to include for the projects that applies to decision makers?
- If decision makers were looking at the Projects page - what would be useful? What information is needed to get them excited and want to collaborate?
- From this Unconference working group's perspective, fueled by the Unconference icebreaker about ranking the usefulness of forecasts from being useful purely for understanding ecological theory to purely useful for making decisions, there is alot of support for working on forecasts to help the world. But how to do that?
- Our system for training students doesn't make it easy to do the translational work. Perhaps the tutorial from the Translation working group can help with this.
- The Unconference working group is talking about hosting focus groups and listening sessions - it might be good to connect with the Translation working group.

iii. Note from the DEI working group-led Book Club
- Book section titled: <u>Trust, Data Science and Stephen Covey section</u>
    - Covey wrote about 13 behaviors of a high trust leader some of them are applicable to building trust in data science and include:

- Listen first
- Extend trust - if data scientists want trust, need to extend trust to business partners (in forecasting, could be non-technical co-creators)
- Clarify expectations - be clear about expectations of how a model will influence decision making
- Confront reality - don't pretend an organization will change the way it makes decisions because the data science team tells it to. This connects to experiences Jody learned about from people who work with decision makers (e.g., VT or USGS working with water managers - VT/USGS provide the forecasts, but the decision managers are still using their expertise and expert knowledge to make judgement calls)
- Create transparency - show how the score is used to change decision making and impact business results
- Deliver results - model accuracy are not results. Improved business outcomes (or for forecasting, improved decision making) are results. Use the decision model to put data science results in a business context. What is the decision model? This could be good to bring back to the Translation group as they are discussing a tutorial for working with decision makers.
  - We talked about this during the Translation working group call. The decision model isn't something that is familiar with Kira and Mike,
- Practice accountability - collaborators have business objectives to meet (or for forecasting decision makers have decisions to make) and the data science needs to help meet those objectives. This connects with what Kira Sullivany Wiley mentioned on the last Translation working group call about understanding what the limitations or constraints are for decision makers you are working with.

- These behaviors relate closely to what the DEI group has talked about in regards to developing collaborations and co-creating forecasts from the beginning of a project (instead of bringing collaborators in at the end). This list also overlaps with what the Translation/Social Science working groups have been talking about

c. Macrosystems EDDIE tutorial on using forecasting for decision-making that may have materials that would be good to reference in the tutorial
   i. **Module 8:** Using Ecological Forecasts to Guide Decision Making (link to module; link to instructor materials)
   ii. From Whitney Woelmer: the manuscript is here as a preprint, but has been accepted at Ecosphere and should be available soon!
d. Jody is keeping this Google doc with notes about the tutorial from previous calls
e. Kira's resource - models of Impact - based on the model that you have what impact do you have on decisions. Theory of Change format may be helpful to visualize what impacts you expect to have and you can fit in metrics. Thinking about it for working group - this is what the working group wants to do so they can have these impacts.
   i. Having a Theory of Change seems like it would be useful in a tutorial and could have an activity around this
f. From Alison: One thing that was discussed at one of the lunches, was how do we make people know that EFI exists so that we can work with them? How do we find stakeholders and then work with them to ask the right questions and use forecasting models best for their needs? There's almost two ways to start developing a forecast: out of your own questions/curiosity or from an outside question/a more applied need. And for those forecasts that already exist, how can we use them or know they exist when people come to you (as an extension specialist, etc) with their questions?
   i. This riffs off of figuring out what people need and measuring the impacts
   ii. Big thing was how do you know what your stakeholders need?
   iii. Technology push vs technology pull
      - Could have co-production or could have something produced because you think it is interesting that someone else might find interesting.
      - Chris' example of jellyfish forecast was developed to see if you could predict an organism with temp and salinity, but swimmers and boaters loved it - all things that Chris didn't start out with when he developed the forecast
g. Next steps - decide on what a tutorial would look like. Goal of the next meeting is to pick something
   i. There are lots of ideas, list them all and then prioritize on what has impact based on what we think is successful
   ii. Think about it as a series of youtube short 5-10 minute videos

3. Another resource from previous calls: Compilation of notes from the Social Science and Partners working group calls where matchmaking was discussed