November 14, 2022 Translation Working Group Call

Attendees: Chris Brown, Jon Cummings, Kira Sullivan Wiley, Jody Peters, Mike Gerst, Jessica Burnett
Regrets: Cliff Duke

Agenda

1. Jessica Burnett's Overview about the NASA Ecological Forecasting Program, which is now the Ecological Conservation Program
   a. Jessica is a AAAS Science & Technology Fellow with the Program
      i. Tightly coupled with the Biodiversity Program which is led by Woody Turner. Keith Gaddis leads the Ecological Forecasting Program
      ii. NASA Earth Science Division - sits within the science mission directorate and has 5 organizations (Flight, Data, Technology Office, Research & Analysis - Biodiversity is within this, and the Applied Sciences - which the Ecological Conservation Program is within this)
      iii. Ag, Climate, Env Justice, Energy, Capacity Building, Disasters, Health/Air Quality, Water Resources are the topical areas in the Applied Sciences program
      iv. Primarily a funding organization
         1. Most recent solicitation was $3M and funded 13 projects. Feasibility of earth science decision making programs (similar for the 2016 solicitations)
         2. Many funded project historically have included developing out a digital decision making tool for their decision making partners
      v. Examples
         1. Adelie Penguins - remote sensing/earth observations are really useful for studying them. 20 years ago NASA used images to say yes/no about penguin populations. More recently NASA is funding in situ sampling for guano which are pink/red due to krill diet. Using the guano images to look at penguin populations.
         2. Ecological conservation and other applied programs aren't just funding remote data, but also funding in situ measurements that can compliment remote sensing
      vi. Next steps to link EFI with the Applied Science group and the Ecological Conservation Program
         1. Want to know how we can incorporate EFI into NASA and vice versa
         2. Follow updates on the BD/EC webpage - has past, current, and forthcoming solicitations
         3. Share funding opportunities - have projects for PIs, undergrads, grads, and some postdocs. Not just limited to aerospace engineers

4. Mike Dietze is also very connected to the BD/EF program. He participated on a recent report (see resource links from Jessica below, point 5e).
5. Jody to add the list of resources from Jessica's slide
    a. Past, current, and future funding opportunities
    b. https://cce.nasa.gov/biodiversity/funding_opp.html
    c. Biodiversity & Ecological Conservation program homepage
    d. https://cce.nasa.gov/biodiversity
    e. Recent report for Biodiversity & Ecological Forecasting programs
    f. https://cce.nasa.gov/biodiversity/pdf/NASABiodiversityReport2022.pdf
    g. Dynamic list of other NASA hyperlinks
    h. esp. student/grad student opportunities at bottom!
    i. https://tinyurl.com/nasabdef

vii. Do the activities for the Conservation Program need to be related to conservation?
1. Historical and most likely future funding will require projects to include a partnering organization (end users). Will go from 80% funding from NASA at the beginning of the grant and then move to 80% funding by the external stakeholders by the end of the grant
2. Not just for conserving, but also for management
3. Examples of partnering organizations
    a. US Forest Service
    b. Global/International Conservation
        i. Identifying potential sits for marine protected areas - conservation groups for that area
    c. WWF
    d. Not sure if have partnered with other national agencies, but have partnered with other academic groups related to national
4. Do the partnering organizations continue to support he maintenance and perpetuity of the forecasting projects?
    a. The is the ideal outcome, but hasn't always happened historically
    b. Demonstrating that an end user can take that over is an advantage when proposal are submitted

viii. UNBOUND program - funds workshops geared toward how NASA and others can advance remote sensing by people not already using NASA products.
1. Where are there barriers to using earth sensing products
2. https://www.earthdata.nasa.gov/esds/esds-program-components/unbound
3. Contact: Stinger Guala

ix. The CI/Methods group is planning to work on proposing a workshop that fills gaps in cyberinfrastructure and statistical methods.
1. During the short interview Michael had with Woody (see below), Woody had a suggestion about making a searchable database so people could find other examples of forecasts/workflows so that forecasters do not need to continually build "boutique" forecasting workflows. Jody added this to the notes for that workshop
2. Jessica suggests invite into the planning process into the workshop proposal
a. Send draft of the workshop proposal to Keith (and Woody)
b. But also send to NASA's PIs because they have augmentation opportunities that has funding for things like workshops that are not available for the public to apply to
3. Jody will keep this group posted about the workshop proposal since we think there is overlap with cyberinfrastructure/methods gaps that may apply to working with partnering organizations and end users

2. Update and synthesis from the interviews and plans for pulling together the information and making plans for what to do
a. 9 interviews completed with early, mid, and later career individuals from Gov't (USGS, NASA, NOAA, USDA), Academia (UC Berkeley, Cary Institute, U of Arizona, Virginia Tech), and Industry (DAPPER Stats)
b. Goal was identifying the big translation barriers and once identified then find the low hanging fruit that the group can address
c. Didn't think there was overlap in responses
d. Michael's goal is to synthesize the insights into a 1-pager to distribute to the group within the next week
e. On the fence about whether to do more interviews
    i. If we do more want to follow up with academic and limit it to 5
f. We didn't do snowball sampling, but think some people mentioned others to reach out to
g. If we talk to others, then think about diversifying across role within academia, tenure. Thinking about institutions within academia, type of discipline, type of institution (R1 vs other)

3. Notes Jody is keeping in for reference about the interviews from previous calls.
a. Targeted survey to gauge the translational needs of the EFI community - get a better handle on what the modelers/physical scientists needs are in terms of translational needs
    i. Interview questions
    ii. What will we do with the output?
        1. Synthesize what we have heard that might lead to focus groups

      2. Get to the bigger picture of what are the gap or needs across EFI
      3. After synthesis - could do a webinar or Q&A. This is what we have heard. Bring in speakers on specific topics and use that as an opportunity to see what specific guidance for the community.
      4. Have version 1.0, 2.0 - build on based on different interactions with broader EFI community

iii.   Next steps from Sept call -
      1. Do interviews in 10 person buckets
      2. Focus on career stage dimension
      3. Jody can help with Intro email
      4. Mike will set up an interview with Chris to get started