

September 17, 2019 Education & DEI Working Group Call

Agenda:

- Introductions, welcome any new folks.
 - Jason McLachlan
 - Diana Dalbotten
 - Anna Sjodin
 - John Zobitz
 - Jody Peters
 - Gretchen Stokes
 - Mike Dietze (late arrival)
- Proposal, Nested working groups: Education, Diversity, Outreach \subseteq Edu/DEI
- Diversity: Plan for diversity strategic plan (Diana, Jason)
- Outreach: Do we have people & energy for this? OK if not, but want to clarify.
- Education: Top tasks from July 12 call:
 - Key vocabulary words: at least ID terms, if not define them
 - Google Doc
 - Feedback from other instructors about what works and doesn't work
 - Cayelan might lead, existing IRB
 - Caylen's email 9-16-19:
 - I should be good to go to collect data from forecasting instructors as part of my Macrosystems EDDIE grant IRB (my homework from last time was to check in on this). It would be helpful if the group could let me know which assessment questions would be most helpful to ask - e.g., I'm envisioning that we would use the survey to collect their current syllabi, gather information on what topics they are currently teaching, as well as ask about which new forecasting teaching materials would be most useful. Let me know what else you come up with?
 - John and Diana could chat face-to-face
 - Anna in MN in Aug 23-Sept
 - John, Diana, and Anna met in August
 - Mary: focused on GLEON workshop
 - Half to full-day workshop
 - Wikipedia hackathon
 - Blog ideas
 - Pull:
 - Push: how to teach EF at the undergrad level (John)
 - Google Doc...
- Other items listed in the notes from July's call:

- Could put together a survey to existing EF about lessons learned and effective strategies? What's been useful (or not) so far that could be useful to new instructors
- Another piece: maybe writing a how-to piece on how to develop new modules for a different context (e.g. different, local data)

NOTES FROM CALL

- This is the Diversity and Education group.
 - They overlap, but they aren't necessarily the same thing. Need concerted work on Diversity side of things. Need to keep the link between the Education and Diversity - so need people in both groups, but need to focus on Diversity outside of Education
 - Outreach is another option.
 - Keep this group (or whoever is interested) and meet every 2 weeks flipping between Education and Diversity topics - so meet once a month for each topic
- Curricular side of things (Diana)
 - What can be done in a year meeting once a month
 - Think about this as a strategic plan
 - **Define the question.**
 - **What is the current state of diversity in ecology, forecasting, etc**
 - **What is the current numbers**
 - **How many majors at minority colleges**
 - **Where is the potential pool of students**
 - **What are the barriers fo students participating**
 - **What are the solutions to barriers that we can offer**
 - **Identify relevant lit**
 - This will give us direction and help to write proposals
 - From Diana's experience with the GeoScience Alliance - worked on writing a small paper (3 pages). Having it published let them have a paper they could refer to in their proposals
 - Seems like most places where forecasting is being taught does not reflect the state of education in the US
- Action Items -
 - Diana summarize literature that she is aware of
 - Define what majors people in ecological forecasting recruit from (need person for this). Then see how that cross-over/maps onto the majors in 2-year colleges and underrepresented colleges
 - **Take existing articles on Ecological Forecasting and see the author affiliations are. See the structures of those institutions compared to structure of 2 year colleges and underrepresented colleges**
 - Next call - find time when Cayelan is available and have it be an Education call

- Lots of people involved with Big Data. These people may not cross-over with EcoForecasting projects, but could be good to overlap with
- John: In MN there are efforts to build up community in data analytics. Have data analytics competition - (e.g., predicting the outcome of midterm election, predicting water quality issues). Give students dataset. They form teams. Teams from lots of different backgrounds. Then present to a panel of 3 (academic, industry, gov't). Have 5 pools (undergrads, grad students, novice - e.g., people with 1 stats course, this give them experience). All about showcasing opportunity.
- Strategic plan - this shows necessity. There is uncertainty about who, what, and where. By defining what we are talking about and what the state of the field is in terms of who is recruited. If we figure out how we define the field and how undergrads understand the field that can help with recruiting students.
- Gretchen: Reported back about the work she and Anna did looking at “forecasting” definitions
 - Thinking about different ways people identify/define what they do in terms of ecological forecasting
 - Prediction, forecasting, projection
 - Broke it down in different fields by forecast (sports, political, weather, earthquake, geoscience)
 - Different fields thought of forecasting differently
 - Science - differentiate more between prediction and forecast
 - Sports forecasting - don't care about vocab of result, but focus more on the process. And where the data come from (betting, experts, models of watching baseball games)
 - Business, economic, political - don't seem to have a clear differentiation between prediction and forecast. In a website that defines terms, they said prediction/forecast terms were synonyms
 - Many different ways to define these terms even within science. Many times used the terms interchangeably or using one thing to do the other (e.g., using predictions to make forecasts)
 - Earthquake - can't predict, can only forecast. But other fields they do both
 - Does it matter to us? Do we want to create our own definition or synthesis or adopt a definition used by other groups? Does it matter that we have these definitions?
 - Jason/Mike have more narrow version of the definitions. But thinking about this in terms of Edu/Diversity - will having these narrow definitions exclude people from joining/understanding the group or make eco forecasts
 - Think about whether a narrow definition limits the people involved and if so, how to overcome this
 - Two things involved -
 - Define a field where to bring people together to learn/do ecological forecastings

- Do diversity statistics to see how diverse the bachelor's degrees in ecology are. Then narrow down to how diverse the bachelor's degrees are in data analytics. This is a bit more slippery because data analytics includes so many fields.
 - Guarantee that there are no undergrad forecasting courses
 - Are ecological forecasts diverse
 - Look at reports from AGU, ESA, etc. These two will cover large breadth of the eco forecasting community
 - Have small number of ecologists that identify as ecological forecasters, have a larger number that say they work on forecasting projects, and there are also non-ecologists that work on ecological forecasts (computer science, stats, etc)
 - Goal is not to make everyone identify as ecological forecasters. Goal is to make a route to doing ecological forecasts open everyone interested in it
- Action item -
 - identify ecological forecasting papers, compile author list - find CV for authors and see what their degrees are in. Name of Department or Degree? Name of Department is easy to get.
 - Want to make sure there is a product that this will go into to make it worthwhile for the strategic plan. Have a clear end goal.
 - Perhaps make this a paper about eco fore community. Clear set of figures, clear set of stats
 - Do demographic survey of EFI membership. But would need to get IRB approval to analyze the data. Could send out the survey. But need approval to analyze. But should be fairly easy to get IRB approval
 - Get some numbers down to envision the training and demographic world we represent
 - Want to collect data that is parallel to the data Diana can collect with her resources
 - Data in hand
 - Everyone who joined as EFI member (Jody to check this)
 - Everyone who joined EFI May meeting
 - Everyone who applied and came to EFI short courses (130 1st year, 150 the second year)
 - Expect they have this for the GLEON meeting in Nov. 98 of GLEON participants have registered for forecasting workshop
 - Be careful that we aren't doing an exercise in confirmation bias by defining who we are and what the community is. In addition to descriptive analysis, we want to figure out how to broaden out and make our group bigger.
 - Think about how we are defining the forecasting problems and who are we involved to determine what gets forecasts and what forecasts are being used (user community, end groups)

- For forecasting, Diana can see a lot of overlap with the Native communities. Want to think about how we are defining the forecasts and how we are including these groups.
- Next meeting
 - Formulate document that states why we are coming up with a strategic plan
 - Diana to take the lead on this Jason to help with it
 - Analyses for next Diversity call
 - Mike share existing registration data with Diana
 - Diana look into IRB issues
 - Ask if Cayelan's IRB covers these issues so we could get started on the data that she has
 - Check if race/ethnicity is included in Membership application (Jody).
 - If not, could send out a quick survey to members. Do we want to ask about majors at this time as well? If we can define what we want in the analysis, then that can help us define the questions we want to
 - Next time - see discuss whether a survey is useful
 - Education call next time. Have 5 minute update with what Diversity has at beginning of next call.