

December 14, 2020 Education Working Group Call

Attendees: Diana Dalbotten, Alyssa Willson, Jody Peters, Anna Sjodin, Tadhg Moore, Olivia Tabares

Agenda/Notes:

1. Poll for Jan- May calls
2. Forecasting, Prediction, Projection Manuscript Update (Anna and Gretchen)
 - a. Overview - manuscript about the vocabulary of forecasting and what forecast, prediction, projection is (looking across disciplines)
 - b. Have Google doc with things that they need reference for. Created a list of things they need references for. Looking for a major paper in each category that suggest that each topic is changing. If anyone is able to help, let Anna know and she will share the doc.
 - c. Want to have the writing of the intro to results done by Jan 8, edited by Jan 15. Then will come back for input on the Discussion section including the future of ecological forecasting.
 - d. Has figures from the grad students to get input on
 - i. Figure 1 - nested bar plots. Have EFI members bars be hatched. Could include in figure legend all EFI members are forecasters, but not all forecasters are EFI members.
 - What is the one main take home? Answers are across the board in terms of end goal. The most important end goal is decision making - regardless of primary field. Everyone thinks we need to make a decision, but people didn't consider that it is a necessary component.
 - Reorder bars to be biggest to smallest for disciplines or to follow the forecasting process
 - Remove hatch in background
 - ii. Histogram and Network plot - put asterisks at the end of the shortened words like*
 - Key take away: People definite forecast as something in the future. People use predication as part fo definition of forecasting. People recognize that you need data and a model and that there is uncertainty associated with it
 - Play with the color for future/prediction and match between the two panels
 - Show the future oriented thing that are central in both panels in the same color
 - The histogram recapture the same thing that the size of the dots. So could discard this one.

- iii. Figure 3: Google trend search on left (forecast, prediction, projection) in fields other than ecology (climate change, crime/criminology, earthquakes, elections, hurricanes, stocks, sports, weather)
 - Take away: the word prediction is used most often, but projection is used more often in climate change. Forecast used infrequently in literature as opposed to popular usage
 - Climate change projection - wonder if it has to do with ecology. Prediction = more sure. Projection = less sure.
 - Olivia/Jason likes it through time. Gray headers make it hard to read. Change text to black.
 - Two stories between the 2 figures for Fig 3. The bottom figure with the histogram, shows how many times the text is used vs other fields. On top figure could fix the axes to be able to compare fields, but then you lose the trend. Depends on what the story is you want to show. Or could include all 3 plots.
 - Could sum up the bars and add a 3rd panel for total.
3. Olivia's R infographic for teaching biostatistics with R Updates - just finished courses (yay!) so didn't have time to work on the infographic from the last call. Will give an update for the Jan call.
4. RCN Education Workshop Agenda Draft (Jason, Alyssa)
 - a. 1 day DEI focused meeting first that will feed into a 2 day workshop focused on education and using the Forecasting Challenge
 - b. Next steps - lock in dates for next summer
 - c. Will be working on an application for the DEI meeting and education meetings
 - d. Goal of DEI workshop - identify best practices and biggest challenges ahead. Goal of Education meeting - try to connect with ongoing groups running courses and the RCN Challenge to take what they are doing to have them think about what they are doing as tools for education
 - e. Template of the steps to create a forecast - is there anything that people in the Challenge could add to the template for what hasn't been done to help people interested in teaching forecasting
 - f. Alyssa has a list of >100 resources. Have lots of resources for basic components, using R, etc. The integration is too new and so there isn't much online.
 - g. Could have a research project for an undergrad to test drive the resources and communicate where they had challenges.
 - i. Nievita has students who need projects to do. Could use them as beta testers to get MSI perspective on the resources.
 - h. Project EDDIE background - teaching about macrosystems ecology. Develop 4 modules that are interactive database modules to teach the basics of forecasting targeted to undergrad students. Tadhg is close to finalizing the first modules -

overview of forecasting. Will be testing these in the spring semester and will have assessment questions. Pre-module testing and post-module testing.

5. Document for Guidance Counselors and Instructors working with students interested in ecological forecasting
 - a. Here is the draft

6. Compilation of resources for undergrad education (Alyssa)
 - a. See this document. These are all resource compiled so far and categorized into the forecasting steps
 - b. Jody is leaving this on the agenda, but there may not be any updates