

## March 8, 2024 Education Working Group Call

Attendees: Rachel Torres, Antoinette Abeyta, Jason McLachlan, Jody Peters

Regrets: Mary Lofton

Agenda/Notes:

1. Reminders:
  - a. EFI Steering Committee elections end today - if you are [an EFI member](#) you should have received a ballot
  - b. Early bird registration for the [EFI 2024 Conference](#) ends today
  
2. Follow up with Rachel about how the AIHEC workshop on Indigenous data science went
  - a. Workshop webpage:  
<https://storymaps.arcgis.com/stories/3d38e63a55874f15a8949692f0ec8da6>
  - b. Went well!
  - c. From the initial feedback from the group the response was - the participants like it, they got a lot out of it
  - d. Most participants were grad students. Surprising because AIHEC was undergrad specific but Native FEWS brought in a number of students who were grad students.
  - e. There were students who wanted to help - Rachel had good talk with grad student at Berkeley. Discussed having a network to come together with monthly meetings to help develop materials and share what people are doing
    - i. A peer to peer mentorship might be something that we could facilitate
    - ii. Arizona also has a solid group that participated in the workshop that could be part of this
    - iii. If any students at any institutions who don't have the support at their institution could participate
    - iv. Jason will talk with ND grad students who are really interested in DEI topics and doing concrete activities
    - v. Mentorship could be on R or other grad school topics
  - f. Berkeley professor was interested in having Rachel/others come to Berkeley to perhaps do more workshops like this in person
  - g. Jason has a grant with some funding for meetings
  - h. Rachel also connected with Ren Freeman from Salish Kootenai College - really interested in Indigenous data science and computing and having more Native students with the tools to be able
    - i. Jason, Rachel would like to get to SKC to work with Georgia and follow up with Ren
  - i. An idea from Diana to deepen our connection with AIHEC is to develop an education module repository to compile
    - i. We want to get the material on the map so people can use it and develop our network to improve the materials

- j. Rachel also made connection with AISES contact. They are setting up a virtual university which is a place to find courses. There are also TCUs who are setting up a program where students who do a virtual course at one TCU will be counted at others
  - i. Rachel met a person from North Dakota who is leading a virtual course
    - <http://ndinbre.med.und.edu/vids/>
- k. Recommend looking at histories of TCUs and HBCUs - would be good to share this with the whole group**
- l. Thinking about virtual courses - another option could be to have a hybrid option where you get together in person at the beginning and end and then have time in between where you work virtually/asynchronously
- m. Worth thinking about virtual vs in-person workshop best practices and pros and cons
  - i. Access, time commitment, expense
  - ii. Can you go to communities for a workshop so you are on their terrain instead of on your terrain, with the option to have the hybrid option
- n. From survey
- o. National Association of Geoscience Teachers has - a traveling workshop model with the materials to be used locally; <https://nagt.org/nagt/profdev/twp/index.html>
  - i. Could be a good model to meet the in person need
  - ii. Every year people apply to host the workshop. The hosts then advertise to have the workshop. Then also every month have online workshops as well
  - iii. The workshop is for instructors, but could work for students as well
  - iv. Carpentries also has a train the trainers model - goal is that by providing resources for instructors that then more students will be reached
- p. Geoscience Alliance - the focus is on the instructors although there are more students than instructors that participate, but the goal is to help instructors to reach more students
- q. Next steps for Sloan - come up with what Rachel is most psyched about and what will be sustainable and productive
  - i. Think broadly - what is Rachel most interested in, what do we have resources for, etc.
  - ii. But also consider or brainstorm other things that are really awesome that may be more long term/big, still write that down so we can consider it for future grants
- r. Antoinette - got funding to host a state wide grant writing symposium. Looking at NSF and private foundation
  - i. How to make STEM education accessible and culturally relevant. The 2018 [Yazzie lawsuit](#) in New Mexico has highlighted the lack of equal education and provides the impetus for this work
  - ii. Antoinette is leading the group of K-14 and the transition to college/2-year community college
  - iii. Sent invitation to every geoscience teacher and to every stem instructor

3. [ESILL Data Short Course](#)
  - a. 4 weeks virtual synchronous, asynchronous - free
  - b. Participants will learn how to incorporate GitHub (GitHub Classroom, GitHub Codespaces, and GitHub Pages) and Python (pandas, GeoPandas, rioxarray, matplotlib, folium) into their curriculum or existing research model. At the end of the data short course, participants will apply these lessons to a current class or research project.
  
4. Discussion of chatGPT/AI in the classroom - articles and papers shared
  - a. I'm a student. You have no idea how much we're using chatGPT  
<https://www.chronicle.com/article/im-a-student-you-have-no-idea-how-much-were-using-chatgpt>
  - b. Don't ban chatGPT in schools. Teach with it  
<https://www.nytimes.com/2023/01/12/technology/chatgpt-schools-teachers.html>
  - c. This is how AI will transform how science gets done  
<https://www.technologyreview.com/2023/07/05/1075865/eric-schmidt-ai-will-transform-science/>
  - d. A Conversation on Artificial Intelligence, Chatbots, and Plagiarism in Higher Education, <https://doi.org/10.1007/s12195-022-00754-8>
  - e. John Zobitz's Class Ethics,  
<https://docs.google.com/document/d/1IMvzPTGUAAmH0KPibShQ1ualuo8uqIC Cexkh8zmsW8/edit?usp=sharing>
  - f. Basham, T., Hughes-Seefeldt, R., Kovacs, J., Sitvarin, M., Sollberger, D. (2023). [AI Tools in Pedagogy](#). 2023 BIOME Institute, QUBES Educational Resources. [doi:10.25334/D5SE-TK10](https://doi.org/10.25334/D5SE-TK10)
    - i. Provides syllabus statement examples starting on pg 13
    - ii. AI Lit Review tools from Texas A&M  
<https://tamu.libguides.com/c.php?g=1289555>
  - g. The Use of Generative Artificial Intelligence In Teaching and Learning  
[https://teaching.ucla.edu/resources/ai\\_guidance/](https://teaching.ucla.edu/resources/ai_guidance/)
    - i. We will provide strategies for adopting AI technologies in a responsible, ethical manner, and innovating within each discipline, major, and course. Exploring and communicating about the opportunities and limitations to using these tools will allow instructors and students to critically think about how knowledge is created.
  
5. If we have time on the call, we could do this self-reflection in person during the call. This was suggested on the Jan call to help the group think about biases when teaching other students data science
  - a. When and how did you learn about data and how to collect and analyze it?