August 16, 2024 Education Working Group Call

Attendees: Mary Lofton, Jody Peters, Ethan White, Ashley Kim, Alyssa Willson, Saeed Shafiei Sabet, Jason McLachlan

Agenda/Notes:

1. Poll for monthly calls in September to December. Ignore the dates and focus on the general times you are available. Make sure the time zone is correct

2. Please submit nominations for EFI2025 Conference session topics and potential speakers by Aug 30.

3. Hacking Limnology online workshop content (Saeed)
    a. Something that stood out to Saeed was how to share data/findings in an open setting and will be including that in his courses for his students
    b. Open data is so important, but is difficult to have transparency and reproducibility. It is aspirational, but it is hard to get there.
    c. Putting it in as an expectation into courses is a good way to acclimate students to make this become more of the norm
    d. What are others people experience with open science in education?
        i. Not many experiences in classes.
        ii. Some people have had archived public data for their projects, other people did not. When it was not a priority for the project it was hard to get the data for the project and hard to make it a priority to archive data personally for the project without the support
        iii. Also want to acknowledge that in situations when work

4. What peer review, publishing, and open source licensing options are available for educational materials? Learn about folks' experiences with different venues, what options are out there, etc.
    a. Teaching Issues and Experiments in Ecology - is peer reviewed but doesn't provide DOI for materials
        i. This journal was used for the recent Education led working group paper
        ii. There were reviews but Jody, Jason think they were from the editors and that the reviews didn't come from outside reviewers
    b. QUBES Hub - does provide DOI, but isn't peer reviewed
    c. Journal of Open Source Education - the thing you are building is the thing that matters, not the paper that you are writing wrapped around what you are building. Have checklist of things that are important for open source software or open source education. If something is not there what is needed to improve it.
        i. Does both peer review and DOI
        ii. Papers can be as long as you want but can also be short
            - Has statement of need - why is the thing you built important

- Then additional details about the project
- Then educational resources are evaluated
- You can host your material in QUBES as well
- Downside - it is slow. It is small group that is maintained by volunteers

iii. Slow - could be 6-10 months. But once you get into peer review, you won't be asked to stop or be rejected like other journals

iv. How does the journal handle formats like word which is not seen as open
- Could have both word and pdf versions
- Main thing about openness is related to the material itself rather than the format of the materials

v. Most of the materials in JOSE is single module level.

d. Science Education Resource Center - no DOI/licensure but it is a popular peer review education resource site
   i. Some materials on SERC are peer reviewed, others are not
   ii. Antionette has served on the review side through EER (Earth Educator Reviews?) - meet every few years and review the submitted education materials and provide recommendations
   iii. Have 3 people analyzed and
   iv. Topic-wise it is very broad in regard to discipline and also has Spanish versions
   v. If you get in here there is a good chance that it will be used widely
   vi. Not sure if the program will continue
e. Jody and Mary will reach out to people on their campuses to see if there is advice
f. Another ESA option https://ecoed.esa.org/ - it is peer reviewed, but also looks like maybe no DOIs
g. ESA has done a good job for thinking about venues for educational materials
h. How to decide on an appropriate copyright license for open source materials?
   i. EDDIE is CC-BY
   ii. How do other choose their license?
- Rachel's takeaway from watching YouTube overview was that it doesn't really matter
  - Can someone use your code to make a profit.
  - If someone uses your code, do they have to keep their code opensource and are they able to put it into a product they can sell
- MIT license is used widely and is pretty simple. If you have that license people can use it and could potentially profit off of it
- GNU is more strict the open sour
- Ethan cross licenses CC-BY and the associated code MIT

   iii. Good question given the large language models scrapers which are currently not respecting licenses
   iv. Non-commercial licenses can get tricky for university materials
i. What venues are appropriate given the scope of the materials

        i. If you have 1 module vs an entire curriculum
    j. Culturally at faculty level have very limited culture of building on other people's work
        i. There is a lot of stuff at the faculty level to encourage people to build materials to help reduce time investment in building a new course
        ii. Also need materials to be written in a way to make the resources flexible for individual use cases

5. Jody is keeping this note in as a reminder - Is there a code free, GitHub free forecast challenge that could be developed?
    a. Could invite Dan Keefe to give presentation - has lots of thoughts about technologies that don't include coding
        i. Dan is not available for the August call, but is willing to share in September. Jody will check schedules once we get the results from the poll for the Sept-Dec Education calls
    b. https://processing.org/
    c. Nick Record does some of this with his forecasting challenges and courses
    d. Freya's work that could be transformed into a Shiny format - using CI with code under the hood, but where the user is not using code