Addendum on Ethics, OER & Accessibility

BACKGROUND

Section E. Ethics, Open Educational Resources, and Accessibility of the Project Narrative (page 16 of the RFP) states: *"If not included in any of the above, please discuss: a) how your project will incorporate ethical considerations of data science; b) how your project will make materials developed with Learning Lab funds available as open educational resources, and c) how materials developed with Learning Lab funds will meet the diverse needs of learners (such as through a Universal Design for Learning framework) and be accessible for participants with disabilities."*

This addendum is intended to provide helpful information as applicants address this section of the proposal, which is limited to 1 ½ pages, for both Initial and Final Proposals. Please note that applicants are welcome to discuss Ethics, OER, and/or Accessibility information earlier or elsewhere in the narrative, in which case directing readers to those sections is appropriate; applicants may also use this section to elaborate on information provided elsewhere in the narrative, or use this section to independently address these topics.

i. **Ethics**:

The [National Academies' *Data Science for Undergraduates*](#) report states the following with regard to ethics (pages 30-31):

> Ethical considerations, in other words, lie at the heart of data science. Unique ethical considerations arise in each step of and throughout the data science life cycle (i.e., when posing a question; collecting, cleaning, and storing data; developing tools and algorithms; performing exploratory analysis and visualization; making inferences and predictions; making decisions; and communicating results). Stand-alone courses on ethics could help students learn what intelligent systems and the tools of data science can and cannot do. It is important to emphasize to students that this is not simply a case of "do it like it is done today"—it is a case where ongoing improvement and elevation of standards are needed. Beyond the stand-alone ethics course, students stand to develop a deeper understanding of the role that ethics plays throughout the study and practice of the data science life cycle if ethical principles are incorporated into most of the courses in the data science curriculum.
> …
> Key aspects of ethics needed for all data scientists (and for that matter, all educated citizens) include the following:

Ethical precepts for data science and codes of conduct,
 Privacy and confidentiality,
 Responsible conduct of research,
 Ability to identify "junk" science, and
 Ability to detect algorithmic bias.

Inclusion of ethics in the curriculum and/or pathway depends on the particular grant category an applicant is addressing. Myriad resources on data science and ethics exist, too numerous to list; however, we include the following session on ethics, which was included in the National Academies' webinar series in 2017, "Envisioning the Data Science Discipline: An Undergraduate Perspective." While the session is not required to review, the [video recording](#) and [slides](#) are provided in case they are helpful.

ii.   OER

Section V of the RFP: Post-Award Agreements and Deliverables includes a paragraph on OER (page 20):

> Open Educational Resources: Institutions must agree to terms and conditions that require course and course series and technology/platforms enabled with Learning Lab funds to be available as open educational resources, as defined through the grant agreement. Additional guidance will be provided prior to finalizing the grant agreement.

What OER and intellectual property arrangements will appear in the grant agreements? Statute requires the Governor's Office of Planning and Research (or its designated agent, the Foundation for California Community Colleges) to establish terms and conditions that require Learning Lab courses and course series, and technology and technology platforms developed or redesigned with Learning Lab funds, to be available as open educational resources. Learning Lab considers "open educational resources" to be any educational resources released under one of the Creative Commons licenses (or its equivalent) other than CC-BY. Open educational resources include, but are not limited to, full courses, course materials, modules, textbooks, faculty-created content, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge. *It is the intent of this grant agreement that open educational resources that are developed with Learning Lab grant funds be made available at no cost or substantially low cost to students attending public higher education institutions.*

As part of the terms of grant agreements, awardees will agree to release all resources developed with Learning Lab grant funds under one of the Creative Commons licenses (or its equivalent) other than CC-BY. The Learning Lab excludes the CC-BY license out of concern that this license would potentially allow outside entities to build upon products developed with Learning Lab funds for commercial purposes, but then place larger restrictions on access to the resulting product than the permissions of the original product. Learning Lab goal is to avoid the possibility that modified or subsequent versions of resources developed with Learning Lab funds might be "walled off" by an entity using them for commercial purposes. Learning Lab does not require that resources necessarily be free to users in order to be considered "open educational resources," but instead encourages projects to make

resources developed with Learning Lab funds available to additional users either at no cost or at minimal, necessary, reasonable cost depending on the expense necessary to support its use.

Because Learning Lab allows for differentiation (and different license types) in what is considered OER, **Learning Lab recommends some discussion in your proposal of the following***:*

- *what "open" means for your project, i.e., how students and/or faculty will access materials developed with Learning Lab funds, and how that can be sustained during the period of the grant and beyond;*
- *what OER materials the project team will be searching for and/or using/reusing/revising/remixing/redistributing; and*
- *if the project makes use of necessary non-OER materials, please discuss the impact on the project and the necessity of use.*

iii.   Accessibility

Standards for accessibility are local to your institution; however, best practices do exist. Whether it's WCAG 2.x or consistent [use of alt text](#) or using [Universal Design for Learning guidelines](#), please include some discussion on how your project will approach accessibility preferably from the start rather than the end of your project. Who is responsible for accessibility? At what points will they be working on accessibility in the project? Who else will be consulted? How is your approach reflected in your budget?

Learning Lab hosted a [webinar on digital accessibility](#), with guest speakers from UCLA's Disabilities and Computing Program. The webinar highlights different models of disability, what forms disability may take, cultural issues and real-world impacts on students with disabilities, as well as provides some elementary "how-to" tips on digital accessibility.

iv.   Bonus Content on Evaluation!

As part of its Fall 2022 INSPIRE Convening, Learning Lab commissioned WestEd to deliver an in-person workshop, [Project Evaluation: Designing for the End](#). If you are still mulling over a response to the Project Assessment section, please feel free to listen to this recorded workshop.