Title: A Community Hub Promoting the Use of AI for the Creation and Adaptation of OER

Introduction

The University of Virginia Library and ISKME are seeking a one-year planning grant of $149,039 from the National Leadership Grant-Libraries program to develop a community web portal that focuses on harnessing generative Artificial Intelligence (AI) technologies to foster the creation and adaptation of Open Educational Resources (OER). Aimed at aiding librarians, educators, AI practitioners, and students spanning higher education to K-12 libraries, the portal is conceived as a dynamic space where individuals can collaborate and share knowledge, tools, and strategies related to AI in the service of OER, supported by a rich array of resources like a repository, discussion forum, and events calendar. (IMLS Goal 1 Objective 1.1, Goal 3 Objective 3.1) The initial year will focus on planning and structuring the portal, establishing its basic functionalities, and populating it with content sufficient to allow for robust testing of all features. Feedback from the testing phase will improve the project plan in anticipation of a full proposal submission to the IMLS. This project aspires to enhance and expand upon the achievements of other IMLS-backed OER projects, such as the University of Maryland's project to support OER localization (LG-254836-OLS-23), Pennsylvania State University's Project to create a service model for homework delivery systems (LG-254849-OLS-23) and VIVA's project to create an open homework system (LG-252309-OLS-22). Leveraging the expertise of ISKME, the project will further the objectives of OER Commons as a digital library and collaboration platform.

Justification

Libraries have always played a central role in the gathering and dissemination of knowledge and an increasingly prominent role in community collaboration and education. In terms of support for Open Educational Resources, the role of the library at many institutions is steadily expanding beyond that of resource discovery to include the creation and adaptation of content. However, even with library support, the creation and adaptation of high-quality OER is a time-consuming task that usually falls to already overworked educators. Creating content from scratch is a process that for an individual author can take several years of sustained effort, particularly in the absence of course relief or other substantive means of support. The adaptation of existing OER faces similar challenges. One important form of adaptation, localization, increases the relevance of the content to individual institutions, student populations, or even courses, and can lead to a more inclusive classroom and an enhanced sense of belonging for all students. (Nusbaum 2020). However, even adaptations of existing content take sustained time and effort, scarce commodities. Supplementary materials, such as test banks and homework systems, present yet another challenge. The lack of such important ancillaries makes it difficult even for educators who have found suitable open textbooks and would like to use them in their classrooms to break free from reliance on commercial textbook systems.

Generative AI, with its potential to speed up and make more efficient many aspects of OER creation, including ideation, organization, writing, and editing, could provide solutions to this problem. AI in the service of both ancillary creation and the adaptation of existing content could be instrumental in improving the rate of adoption of OER and its use in creating inclusive classroom environments. However, rapid advancements in the field of artificial intelligence necessitate continual learning and experimentation, putting additional strains on authors interested in leveraging this new technology. Understanding that all responses to AI now are transitional, we are disinclined at this point to focus on a specific solution or tactic. Rather, we argue for a flexible approach, a web-based community portal, that will be able to adapt to the rapidly evolving AI landscape and will encourage experimentation within a supportive community, helping educators stay abreast of the latest developments in AI technology without the associated pressures of doing it alone. It will also serve to underscore the role of libraries as hubs of collaborative digital innovation and learning.

Project Work Plan

Phase 1 (Months 1-3)
- Define roles: Concretize the roles and responsibilities of partnering institutions.
- Define Mission: Create a mission statement to guide the project.

- Create Steering Committee: Assemble a diverse steering committee to oversee the project's direction.

Phase 2 (Months 4-8)
- Portal Development: Initiate the development of the portal with a focus on secure authentication, API integration, and accessibility, ensuring a robust foundation for future functionalities. ISKME's involvement would lead us to consider OER Commons as a suitable framework.
- Resource Accumulation: Begin to gather relevant resources to populate the repository as a proof of concept.
- Outreach and marketing: design and being to implement an outreach plan, including a website and blog.

Phase 3 (Months 8-10)
- Beta Launch: Release a beta version of the portal to gather feedback and make necessary adjustments.
- Outreach and marketing: implement full outreach plan, including announcements on listservs and social media.

Phase 4 (Months 11-12)
- Incorporate feedback and prepare a proposal to IMLS for full implementation.

Diversity Plan: To foster an inclusive and diverse environment, the following strategies will be implemented:

- Multilingual Support: Ensuring accessibility for non-English speakers through multilingual content and automatic translation tools.
- Accessibility Features: Implementing features like text-to-speech, high contrast modes, and alt-text for images to cater to users with disabilities.
- Diverse Steering Committee: Forming a steering committee representing a wide spectrum of backgrounds and expertise.
- Seek diversity across many demographic factors in user testing and focus groups.

Results: Upon completion, we envision the following outcomes:

- Rich Resource Repository: A well-populated repository harboring a wealth of AI and OER resources, including textbooks, video lectures, and case studies.
- Collaborative Environment: A portal that fosters collaboration through discussion forums, code and prompt sharing, technical counsel, and project management guidance.
- Empowered Community: An empowered community with members showcasing their expertise and contributions, enhancing collective knowledge and innovation.
- Leadership role for Libraries: A reinforcement of the leadership role of libraries as innovative and inclusive spaces adapting to new and transformative digital developments.

Budget Summary: The initial planning phase will have a total budget of $149,039. A preliminary budget breakdown to achieve the outlined objectives is as follows:

- Steering and Editorial Committee Setup: salary $4,000.
- Portal Development and Design (Including Accessibility Features): salary $37,000.
- Resource Repository Setup and Content Accumulation: salary $10,000.
- Community Engagement and Support (Including multilingual support, user experience focus groups, beta testing): salary $22,000.
- Maintenance and Analytics: salary $6,191
- Fringe: faculty $3,883, staff $24,925.
- Indirect costs (other than research) 38% rate: $41,040

The allocation is tentative and might see adjustments as the project develops, assuring every feature is optimally implemented and every challenge appropriately addressed.