Academic Senate for California Community Colleges Open Educational Resources Initiative Proposal

January 31, 2018

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Executive Summary

In California's higher education system various legislative efforts have sought to decrease the cost of course materials for students. Most recently, the focus was specifically on the use of Open Educational Resources ("OER") to achieve this goal. This work formally began with an intersegmental effort initiated in response to Senator Steinberg's 2012 companion bills 1052 and 1053. As codified in Education Code 66409, the "California Open Education Resources Council" was formed and tasked with identifying "...50 strategically selected lower division courses in the public postsecondary segments for which high-quality, affordable, digital open source textbooks and related materials shall be developed or acquired pursuant to this section." The resources developed in response to this mandate now reside on a CSU-maintained website, cool4ed.org. Further advances in increasing textbook affordability were made as colleges and universities obtained funds through the College Textbook Affordability Act of 2015 (AB 798). And most recently, efforts to create zero-textbook-cost ("ZTC") certificates and degrees in the community colleges were funded. While ZTC projects must be zero cost to the student, costs may exist that are covered by the college or another entity. Consequently, some aspects of ZTC efforts may not involve OER and may be inherently unscalable. Nevertheless, these various efforts have served to increase awareness of the importance of reducing the cost of course materials in order to better serve our diverse populations.

At present, no effort is underway to systematically identify and address barriers to OER adoption, support local OER implementation efforts, and leverage the expertise in the California Community College (CCC) system to create a sustainable OER ecosystem. The proposal presented here seeks to create the California Community College OER Initiative (CCCOERI) that serves to coordinate OER activities in the CCCs, including content curation, review, modification, and development; ancillary resource curation and development; and the provision of support to address copyright, accessibility, technical, and other related issues (e.g., print on demand). In addition, the CCCOERI will procure and support software for authoring OER and establish a system to support local OER efforts by creating a network of OER Liaisons that serve to connect local colleges with the CCCOERI and centrally hosted support systems, ensuring an effective means of communication between the CCCOERI, available resources, and the system's 114 colleges. The development of OER materials to address the academic needs of the CCCs would be an on-going endeavor of CCCOERI for the duration of its existence. The CCCOERI would build upon prior and current OER efforts, as well as address emerging curriculum needs. At present, for example, there is a need for the identification and/or development of resources to assist colleges in addressing Assembly Bill 705 (Irwin, 2017) as colleges work to decrease remediation timelines. In the near future, the implementation of guided pathways across all 114 CCCs is likely to identify other curricular needs that the CCCOERI would be well-positioned to address.

I. Introduction

A. Mission

The CCCOERI's mission is to reduce the cost of educational resources for students by expanding the availability and adoption of high quality Open Educational Resources (OER). "OER" refers to teaching and learning materials that are freely available online for everyone to use and includes course modules, lectures, homework assignments, lab and classroom activities, pedagogical materials, games, simulations, and many more resources contained in digital media collections from around the world (as defined by www.oercommons.org). OER most often refers to open access textbooks and ancillary materials that are available at little or no cost to students. The CCCOERI facilitates and coordinates the curation and development of OER texts, ancillaries, and support systems. In addition, the CCCOERI supports local OER implementation efforts through the provision of professional development, technical support, and technical resources.

It should be noted that OER need not be "online". While open educational resources are typically available online, they need not be only online and many are available to students in printed form, at only the cost of the paper and printing. It is important to emphasize that OER resources are intended to serve students in both online and campus-based courses. This distinction is an integral component of the CCCOERI's design, function, and mission.

B. Background

While various legislative efforts have served to introduce OER to the CCCs, no efforts were made to build capacity and move the system from focusing on short-term efforts designed to replace texts with OER in specific courses, to making OER an integrated component of the colleges' curriculum and culture. As the largest system of higher education in the world, the CCC system is well-positioned to use its resources to significantly advance the availability of OER for all of its students by increasing the availability of high-quality OER text alternatives and resources to facilitate their adoption.

While the use of OER was advanced with respect to some transfer courses during the period in which the California Open Education Resources Council (COERC) was active and funded, this intersegmental effort was thwarted by a lack of full participation by the UC and intersegmental inconsistencies with respect to the nature of some commonly taught courses. In addition, this effort was not the collaborative project that it was envisioned to be. Ultimately, the functioning of the Council ceased and any remaining dollars were absorbed by the CSU as the fiscal agent and managing entity. Sustainability was not integrated into the design and, realistically, the Council, as implemented, was not one that any of the three segments wanted to see continue.

Building on the work of COERC, AB 798 (Bonilla, College Textbook Affordability Act of 2015) grants were distributed to 26 community colleges in 2016. AB 798 grantees leveraged \$2.9 million dollars in textbook savings for students during academic year 2016-2017, with 646 course sections adopting OER and reduced cost materials. Students in these sections saved an average of \$134 on textbooks. In 2016, the Zero-Textbook-Cost ("ZTC") degree program was established to provide funding to further expand the use of OER in the CCCs. As ZTC funds were limited, only a small number of colleges benefited from this effort. If the California Community Colleges are to engage in a robust implementation of the use of OER across the state, a system-wide commitment must be made to OER that systematically identifies needs and addresses barriers to OER adoption while supporting local efforts to integrate OER into the local college

culture. This proposal includes identifying one person at each of the 114 colleges who would be trained and would serve as a liaison between the individual college and the CCCOERI. This will provide a mechanism for ensuring that all colleges participate in this statewide OER effort.

At present, all existing funding streams for OER and other approaches to decreasing the costs of course resources are scheduled to come to an end by December 2018.

Grant project	June 2018	Dec 2018	2019
AB 798			
ZTC Grants			

A funded CCCOERI would be able to build on the foundational work initiated by these prior efforts. It also provides a unique opportunity to build upon work conducted as an element of other initiatives, including the development of test items and other work product that were a component of the Common Assessment Initiative.

C. Purpose

The purpose of the CCCOERI is to coordinate efforts between the Academic Senate for California Community Colleges (ASCCC), the Chancellor's Office, grants, initiatives, and colleges to advocate for, expand, and sustain OER efforts in the California Community Colleges. Over an initial five-year funding period, the CCCOERI would build capacity for institutionalizing the development, discovery, adaptation, adoption, and use of OER materials. The ultimate goal of the CCCOERI is to make the adoption of OER as ubiquitous as traditional textbook selection in the CCC culture. At the end of the initial funding period, the system's needs would be reevaluated to determine the focus of the CCCOERI moving forward. It is anticipated that costs would decline over time as initial development efforts transition to review and refresh cycles.

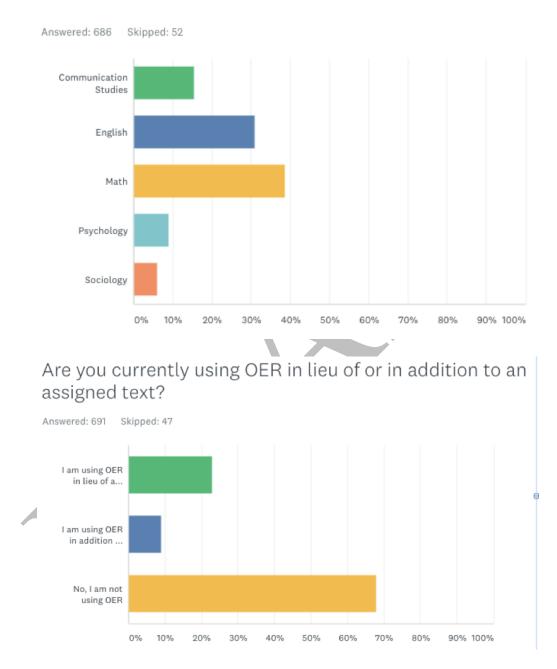
II. Opportunities and Challenges

Opportunities

The various efforts to decrease the costs of texts have resulted in both an increased awareness of OER and use of OER in the CCCs. The ASCCC conducted a systemwide survey of all faculty regarding the use of OER prior to the implementation of the Steinberg legislation in Spring 2013. In late 2017 a similar survey was distributed to faculty in specific disciplines. In 2013, 20% of the 471 respondents indicated they were using OER in lieu of - or in addition to - an assigned text. Only 32 (~ 7%) indicated that they were using OER as their assigned text. In a 2017 survey of faculty in just 5 disciplines, over 20% of over 690 respondents indicated they were using OER in lieu of a text. While more data are needed to determine the extent of the use of OER in the system, these survey data demonstrate that the use of OER dramatically increased in a relatively short time period. In addition, it is likely that many of the respondents in 2013 were the faculty who were aware of and interested in OER. In contrast, the disciplines selected for the 2017 survey consisted of disciplines that participated early in the development of Associate Degrees for Transfer (ADTs; communication studies, psychology, and sociology) and disciplines that teach a wide array of courses and have unique challenges with respect to OER adoption (English,

math). In other words, the documented change is significant as the responding populations were likely to bias the data such that any differences would be minimal.

2017 Survey Respondents By Discipline



The maturation of the Course Identification Numbering System (C-ID) and the robust adoption of Associate Degrees for Transfer (ADTs) resulted in the identification of a wide array of comparable courses that are being taught by faculty at virtually all 114 colleges; C-ID descriptors delineate course objectives, content, methods of evaluation, and acceptable texts. As the C-ID System's work moved beyond its initial focus on transfer disciplines, the CCCs have an everexpanding library of descriptors that can be used to facilitate collaborative efforts to identify,

adapt, and develop OER. Furthermore, the C-ID work resulted in the development of discipline-based list-servs that can be used to recruit faculty as needed.

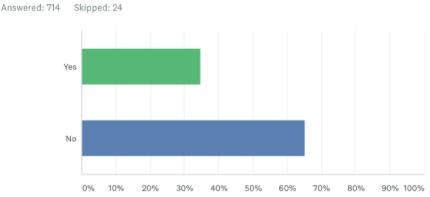
Although the colleges do have a mechanism for identifying comparable courses, this is merely a means of beginning collaborative efforts to meet identified OER needs. The most recent survey identifies an array of challenges that must be effectively managed to achieve the goal of seeing OER become the norm in the CCCs. These challenges will be summarized in the next section

At present, all 114 CCCs are faced with responding to legislation that calls upon them to reduce the time needed for remediation and a funding opportunity that demands a systematic rethinking of how the colleges serve their students (i.e., guided pathways). These shared needs create common challenges for the colleges that could be addressed with resources developed using OER. OER resources and systems could be procured or developed and deployed systemwide to facilitate student achievement of college-level skills. Test items developed as part of the Common Assessment Initiative, for example, could be used to populate a self-assessment and tutorial system for students that provides them with a means of identifying and addressing specific academic weaknesses. Basic skills modules could be developed to address common student needs that could then be modified for local use. With respect to guided pathways, resources could be developed as common needs across the colleges are identified. In other words, the CCCOERI is well-positioned to provide faculty-led system-wide support and solutions.

Challenges

One of the greatest challenges with respect to implementing OER for certain courses and disciplines is the reliance of faculty (and students) on sophisticated resources provided by publishers. While faculty in most disciplines have enjoyed publisher-provided ancillaries, it is far easier to transition a faculty member off of the use of a publisher-provided test bank than it is to convince them to set aside a robust testing system that identifies student weaknesses and then provides resources to address those weaknesses. Not surprisingly, the 2017 survey found that over 30% of respondents used ancillaries that were purchased by their students.

Do you ever require your students to purchase an access code for an online resource that comes bundled with a required textbook?



Despite the gains made with respect to OER over the past four years, almost 40% of the respondents to the 2017 survey indicated that they did not know enough about OER to have seriously considered its use. While this may be an alarming number, it is down from the 60%

that selected this option in the earlier poll. Clearly, more work is needed to educate CCC faculty regarding the OER options that are currently available.

Other challenges relate to the time required to implement OER and concerns about the quality of OER. Implementing a new text always creates additional work, but that work is minimized when the newly adopted resource is accompanied by ancillaries that simplify the integration of the new resource into the course curriculum. Identifying high-quality OER and facilitating collaboration amongst faculty as they transition to a new resource can simultaneously simplify the adoption of that resource and improve that resource. For example, an OER resource might lack contextualized examples or need the addition of self-assessments within the text for students to monitor their understanding. A team of faculty could share the work in addressing such deficiencies, making the workload reasonable and providing a forum for faculty interaction that does not currently exist.

Sample comments reflecting concerns with OER from the 2017 OER Survey

- •I believe people value what they pay for. Tuition wouldn't be rising at twice the rate of inflation if the feds hadn't gotten involved in the student loan business, guaranteeing loans for college students. It has created a bubble in higher education, and it isn't sustainable. Pushing for free textbooks is a band-aid for this problem; if someone has a good one I certainly might consider it, but so far what I have seen is a lot of books which are fair-to-middlin', and some might well have been rejected by mainstream publishers because they were not good.
- •Too much work right now. I'm a new professor. I need my resources handed to me on a silver platter or I simply don't have time.
- •OER are generally poor quality. OER also does not offer online homework like Pearson, WileyPlus, or WebAssign.
- •Online homework capacity was not even close enough to providing the support our students need.
- •OER does not measure up to traditional textbooks.

Concerns about quality may reflect a lack of familiarity with the OER resources currently available; the availability of OER has dramatically increased within the past few years and continues to grow. While more OER is available, a proactive approach is needed to address such concerns. Ideally, a process for curating, reviewing, and improving existing resources could be developed.

III. Recommendations

In order to achieve full-scale adoption of OER in the CCCs, it is necessary to establish a means of making resources available that rival what publishers provide. As no faculty member, department, or college is positioned to embark on developing the array of ancillaries, from texts to test banks and sophisticated homework systems, that would enable the use of OER to become the norm in our colleges, the establishment of a centralized OER initiative for the CCCs is proposed. Leveraging current and past OER efforts, and building on system-wide resources, the establishment of an infrastructure to procure resources and facilitate collaboration is proposed.

As sustainability and scalability is critical, efforts would be made to promote local college support of OER in addition to providing a centralized system to achieve broader goals.

IV. Objectives and Benchmarks

Objective 1: Identify gaps in OER availability and barriers to OER adoption

Goal: Determine courses for which OER is generally is and is not available and identify primary and ancillary materials necessary to facilitate adoption

Activity: Survey discipline faculty to identify C-ID and other common courses for which OER is — and is not - available.

Activity: Survey discipline faculty to identify needed ancillary resources.

Activity: Convene discipline faculty focus groups to prioritize needs and identify strategies for filling those needs.

Objective 2: Facilitate OER adaptation and development with technology resources

Goal: Procure a platform system for storing and editing OER resources (authoring tool) and a system for authoring assessments

Activity: Develop and use a rubric to assess OER authoring tools that meet accessibility, printing, and reuse guidelines for the CCCs

Activity: Identify, procure, and implement an authoring tool for the CCCs

Activity: Educate faculty on the use of the selected authoring tool for creation and modification of OER

Objective 3: Fill gaps in OER availability

Goal: Support curation, adaptation, and development of OER text alternatives and ancillary materials

Activity: Support discipline teams to curate, adapt, and develop OER text alternatives and ancillary materials. Team members to be paid upon completion of work.

Activity: Inform faculty of available OER resources and ancillaries.

Activity: Develop discipline teams to collaborate on OER implementation and to advocate for the use of OER.

Objective 4: Ensure the existence and sustainability of OER online homework systems

Goal: Remove the barrier to OER adoption due to the lack of a quality accessible online homework system

Activity: Identify which courses include online homework as a required component at most colleges.

Activity: Support the creation of online homework assignments for the above courses. The assignments should be specifically tied to the OER textbooks and materials available for that course.

Activity: Support the updating and improvement of the online homework assignments and the corresponding systems. Ensure that the system is accessible.

Activity: Support the sustainability of the systems (e.g. MyOpenMath) so that they can handle a growing number of students.

Objective 5: Address barriers to OER adoption

Goal: Increase the number of faculty using OER by increasing awareness of OER availability and benefits

Activity: Using the Liaisons, ensure that all faculty at all colleges are aware of the resources available for the courses they teach.

Activity: Develop training materials to support faculty in searching for and adopting OER.

Goal: Simplify access to OER resources

Activity: Develop a mechanism to help faculty store and search for OER and OER adopters in their area in a sustainable database.

Goal: Ensure currency and quality of available OER resources

Activity: Update OER to maintain currency of information and address any errata that may be in the resources.

Objective 6: Support local OER efforts

Goal: Provide information, updates, and training to the 114 colleges

Activity: Train and provide on-going support to liaisons to act as campus advocates for OER and provide monthly webinars to share and collaborate.

Goal: Facilitate communication regarding CCC OER activities

Activity: Develop a website, specific to CCCs, to serve as a clearinghouse for all statewide OER events, funding opportunities, and OER-development activities.

Activity: Track use of specific OER resources by CCC faculty and facilitate resource-sharing.

Objective 7: Advocate for OER within other statewide initiatives

Goal: Identify ways that OER can address equity, regional achievement gaps, and student success needs.

Activity: Track cost-savings achieved through replacing textbook costs with OER.

Activity: Gather and distribute data to demonstrate the impact of OER use on student success.

Activity: Promote the benefit of OER adoption to systemwide initiatives and constituency groups.

Objective 8: Identify - and develop - OER solutions related to initiatives and legislation

Goal: Support the implementation of local guided pathways efforts

Activity: Identify and address student orientation and career selection needs with the use of OER resources.

Goal: Support basic skills transformation and development of noncredit courses

Activity: Develop OER systems for assessing student skill levels and tutoring systems to facilitate remediation.

Benchmarks

To be achieved at the end of 5 years.

- Ensure OER availability for at least 70% of all C-ID courses, including career educational courses.
- Significantly reduce costs for students in at least 50% of the most highly enrolled courses.
- Establish a network of OER Liaisons to serve as local OER champions at all 114 colleges.

V. Budget

The CCCOERI requires funds to support personnel, travel, meetings, and, ideally, targeted resource curation and development. The infrastructure to support CCCOERI would be housed within ASCCC and technology purchases would be coordinated with existing procurement systems (e.g. The Foundation for California Community Colleges). Where possible, existing system resources would be leveraged to ensure the sustainability of the CCCOERI work.

Personnel costs would include the cost of the CCCOERI Support Team, a group of experts who would support local, regional, and statewide OER efforts. Personnel costs are further delineated in Section VI, Organization and Management.

The proposed budget reflects an anticipated cost of 5.6 million distributed over the 5-year term of the initiative. While staffing costs would remain relatively stable, some resource development costs would increase over time as needs are identified, while other costs would be reduced as development is completed and resources are dedicated to maintenance and improvements.

Proposed CCCOERI Budget By Funding Year

Category	Year 1	Year 2	Year 3	Year 4	Year 5
1000 Instructional Salaries	\$122,141.25	\$122,141.25	\$122,141.25	\$122,141.25	\$122,141.25
(The average instructional salary is based on the F2016 CCC					
Chancellor's Office Data Mart - \$77.55)					
1 Coordinator – 100%					
30 x \$77.55 x 17.5 = \$40,713.75					
4 Coordinators – 50%					
15 x \$77.55 x 17.5 = \$20,356.87 x 4 = \$81,427.50					
1000 Instructional Salaries – Stipends	\$114,000	\$114,000	\$114,000	\$114,000	\$114,000
Stipends for 114 Liaisons at \$1,000 per year					
Stipends for faculty tasked with resource development and curation	\$60,000	\$160,000	\$160,000	\$80,000	\$40,000
2000 Non-instructional Salaries	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
Staff Coordination: provide administrative, operational, and					
logistical support to the Coordinator and Liaisons, including: meeting					
planning, faculty recruitment, processing expenses, tracking project					
participation, scheduling training and meetings, and other staff					
functions associated with project implementation					
Staff – FTE (2) annual salary of \$45,000 x 50% = \$45,000					
Staff – FTE (1) annual salary of $$100,000 \times 20\% = $20,000$					
3000 Employee Benefits	\$14,300	\$14,300	\$14,300	\$14,300	\$14,300
Staff benefits (3) \$65,000 x 22%	, , , , , , , , , , , , , , , , , , , ,	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,
4000 Operating Expenses	\$101,500	\$101,500	\$101,500	\$101,500	\$101,500
Faculty meetings (7): meeting space (meeting rooms, general					
session, audiovisual, and continental breakfast and lunch for all					
attendees) at \$10,000 + travel and lodging for key faculty/staff at					
\$4,500 (10 people x \$450/person) = \$14,500/meeting					

1000	4	4	1	4	4
5000 Other Operating Expenses (OOE) and Services	\$10,500	\$10,500	\$10,500	\$10,500	\$10,500
Coordination of committee meetings (7), including meeting space,					
lunch, and travel for CCC committee members - \$1,500/meeting					
5000 Other Operating Expenses (OOE) and Services	\$160,000	\$240,000	\$200,000	\$200,000	\$160,000
Support Team: Individuals with expertise who can be deployed to					
address issues and questions related to copyright, accessibility,					
technology, and instructional design. Budget estimated based on 4					
consultants at \$40,000 - \$60,000 each					
5000 Other Operating Expenses (OOE) and Services	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Average cost to build and maintain a website					
5000 Other Operating Expenses (OOE) and Services	\$200,000	\$200,000	\$150,000	\$100,000	\$100,000
OER-curating/authoring software and necessary training					
5000 Other Operating Expenses (OOE) and Services	\$250,000	\$250,000	\$250,000	\$200,000	\$250,000
Online Homework/Tutoring System Development and Maintenance					
(programming and server costs)					
Total	\$1,117,441.25	\$1,297,441.25	\$1,207,441.25	\$1,027,441.25	\$947,441.25



VI. Organization and Management

Centrally, the CCCOERI would consist of a small team (CCCOERI Regional Leads) that would be lead by the CCCOERI Coordinator. The work of the CCCOERI would be guided by the Advisory Committee and facilitated by OER Liaisons at each college. Support for the work of the CCCOERI and local OER efforts would be facilitated by the OER Support Team. The OER Support Team would be available to provide assistance with respect to copyright, accessibility, and technical issues. Additional expertise would be added to the support team should a need arise. Operational support would be provided by staff employed by ASCCC, ensuring close coordination between the CCCOERI and the statewide group representing faculty with respect to academic and professional matters.

CCCOERI Personnel Roles

CCCOERI Coordinator – 100%

- Represent the CCCOERI at appropriate state-level constituency, grant, and initiative meetings.
- Develop and advertise OER-specific professional development opportunities to community college faculty through OER campus liaisons.
- Liaise between entities and grants where the CCCOERI could be a stakeholder.
- Report to ASCCC on statewide progress in OER.
- Coordinate efforts to implement a statewide CCC OER referratory/database.
- Identify gaps and needs for creation and/or curation of textbooks and materials specific to CCC OER needs.
- Investigate external funding sources to address OER gaps.
- Support faculty discipline specific leads.
- Assist with the formation of OER faculty groups in each of the major disciplines.

CCCOERI Regional Leads - (4) - 50%

- Coordinate CCCOERI Liaisons by holding monthly virtual meetings, disseminating information, facilitating connections between colleges, and holding regular office hours.
- Conduct general OER training sessions for colleges in his or her region and conduct trainings aligned with his or her expertise across the state.

OER Liaisons (one for each of the 114 colleges) – yearly stipend, amount TBD (position is intended to be precursor to locally-supported OER Coordinator)

- Attend workshops, both virtual and face-to-face, to be educated about OER.
- Share with faculty and staff at their local colleges what was learned at the trainings.
- Assist faculty in identifying OER for individual courses.
- Facilitate OER adoption locally.
- Recruit faculty to participate in statewide OER efforts.
- Provide information about professional development opportunities to local faculty.

CCCOERI Advisory Committee

Chaired by the CCCOERI Coordinator, the Advisory Committee would guide the work of the CCCOERI. The role of the CCCOERI Advisory Board is to steer and support the work of the CCCOERI Team and provide guidance on the direction and mission of the CCCOERI. The Advisory board will meet quarterly and the CCCOERI Coordinator will incorporate feedback from this group to be shared with the ASCCC regarding progress on the initiative.

Proposed Membership

- 5-6 faculty members from different academic areas (e.g., English, library, math, social/behavioral sciences, physical sciences, CTE)
- Chancellor's Office Representative
- Bookstore Rep
- CIO
- Student Rep
- Accessibility/DSPS
- Student Equity Director
- ASCCC Executive Committee member

CCCOERI Support Team

The implementation of OER requires expertise that may not be readily available at the colleges. The CCCOERI would fill this gap in local support by providing access to individuals who could address issues and questions related to copyright, accessibility, online homework systems and technology/instructional design. The exact mechanism for providing these services might involve personnel currently attached to other statewide initiatives, such as OEI or the Butte Technology Center.

Role	# people	% reassigned time or # hours or stipend each (per year)
Coordinator	1	100 %
Regional Leads	4	50%
OER Liaisons	114	Stipend (\$1000)
Advisory Committee	7 faculty 1 CCCCO rep 1 bookstore rep 1 CIO 1 student rep 1 DSPS rep	N/A
Support Team	1 copyright expert 1 accessibility expert	Contractors, hours to be determined based on need

1 Instructional Designer 1 technology expert	

