

# The MERLOT Faculty ELIXR Project: Faculty Development Centers and Online Repositories Collaborating to Share Exemplary Teaching Practices

## Proposal Description

### **Introduction**

Under Vonda's eyes there are circles that speak of tiredness, but in the eyes there is a sparkle that reveals her energy. When she talks you can't miss the drive within: *"I work full time and I am a student. Sometimes at eight o'clock in the morning I've only gotten 2 or 3 hours of sleep after work, and I'm asked to describe nucleophilic substitution reactions – the last thing in the world I want at that particular point...but this class has taught me to think more clearly and to work productively with others to help us all learn. I have taken the 'thinking muscle' I've developed in this class and put it to use in my other classes."*

When we show that video clip to our campus academic leaders, you can see them get it – let's find out what this instructor is doing and get the word out to our other faculty.

If only it were that easy. We also show them a video clip of Ken, another instructor who did learn that method and put it to use: *"I just was amazed by the change in the attitude of students and their participation in class. It was clear that Don had hit on something that was very powerful."* Don had done more than hit on a powerful way to enhance student learning – he had written a scholarly paper and set up a website to describe the approach. Yet Ken was convinced only when he saw the student reactions first hand in Don's classes [and he had to understand organic chemistry to follow what went on].

How can we disseminate compelling stories like this one from Don and Ken – and Vonda – in ways that are both effective and efficient? These video clips are excerpts from pilot studies in the California State University, which are part of an innovative approach to

address this challenge. We are developing new collaborations of faculty development offices and discipline repositories of resources for teachers, which offer economies of scale and faculty engagement to enhance our dissemination of exemplary teaching practices.

***The Imperative:*** The demand for effective and efficient faculty development has grown to critical proportions due to the convergence of many factors. Regional accreditation agencies are requiring a culture of evidence for learning outcomes; faculty development is required to design and deploy effective instruction and assessment methods. The explosion in the use of technology to augment and mediate teaching and learning requires faculty to develop skills that were not addressed in their scholarly preparation in graduate school or professional organizations. The demographics of faculty cohorts indicate a significant increase in retirements and hires which will enable institutions to transform the teaching-learning culture on their campuses through faculty development interventions.

***The Challenge: to engage faculty with exemplary teaching practices, as members of both institutional and disciplinary communities of teachers.***

Centers to support the development of faculty as teachers exist within most of our higher education campuses and systems and are emerging as critical organizations in supporting, implementing, and disseminating instructional and academic technology innovations. Under various titles – Faculty Development, Professional Development, Teaching Excellence, etc. – these units work with faculty to establish a base of knowledge for teaching, to help them understand learners and address instructional challenges, to exchange exemplary teaching practices from within and across institutions, and to accelerate the progress of our good teachers into truly great teachers.

For example, one of the first opportunities and challenge campus leaders have to disseminate exemplary teaching practices across their institutions is the induction of new faculty into the institution. On one hand, the institutional context of strategic priorities and the limitations on a center's resources require a typical "new faculty orientation" to focus on specific campus-wide themes, which may emphasize a particular approach such as Just-In-Time Teaching, a particular need such as retention and success for special needs or at-risk groups, or a particular aspect of pedagogical knowledge such as how to detect and debug student misconceptions. On the other hand, as a recent study in the U.K. has noted, when considering their approaches to teaching and learning most of our faculty may *"primarily seek and respect the advice and guidance given by colleagues in their own discipline"* or at best are *"broadly tolerant of a generic approach but need to be provided with 'stepping stones' to link this with their disciplinary context"*<sup>1</sup>. The challenge for faculty development is to provide discipline-based examples of exemplary teaching practices and innovations, in ways that build faculty identity as members of both institutional and disciplinary communities of teachers.

We believe the time is right for collaboration – across campuses, systems and disciplines – to develop, share and apply discipline-oriented resources which illustrate exemplary teaching practices and which also support faculty in using those practices to enhance student learning. This latter aspect is critical to success: 'raising the bar' for faculty by showing them a compelling example of enhanced teaching and learning will be most effective if we can at the same time provide them with a 'starter kit' of resources they can adapt to meet the needs of their own students.

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<sup>1</sup> Supporting New Academic Staff initiative, Higher Education Academy, <http://www.heacademy.ac.uk/992.htm>, accessed July 1, 2006.

***The Solution Model: faculty development centers and online discipline repositories collaborating to engage faculty with exemplary teaching practices.***

Recent advances in online repositories of learning resources supported by faculty discipline communities make this proposal especially timely. For example, the MERLOT<sup>2</sup> repository of over 14,000 online learning materials continues to experience dramatic growth in usage: at the start of 2006, the number of unique users seeking out shared learning resources was up 50% over the previous year to over 40,000 unique users per month. MERLOT has also created 15 discipline communities<sup>3</sup> that peer review the materials as well as expand the shared teaching expertise available for re-use and adaptation. Through partnerships with disciplinary organizations, such as the American Association of Physics Teachers, Association for Theatre in Higher Education, IEEE Computer Society and the Journal of Chemical Education, MERLOT has built bridges between faculty scholarly activities and the teaching of their disciplines to students.

Other discipline repositories have also achieved success in development and exchange of teaching approaches and supporting learning resources, such as our project partner the *Teach the Earth*<sup>4</sup> site for Geoscience faculty.. The *Teach the Earth* repository is regarded as a model for success in disseminating exemplary teaching practices within a discipline. More than 20,000 users visited the site six or more times in 2005, while a poll of Geoscience faculty in the United States indicates that one quarter use the site. *Teach the Earth* is also engaged with other leading discipline portals to disseminate exemplary teaching practices across disciplines. Collaboration across these two communities of

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<sup>2</sup> [www.merlot.org](http://www.merlot.org)

<sup>3</sup> <http://www.merlot.org/home/Sites.po>

<sup>4</sup> <http://serc.carleton.edu/>

discipline repositories and faculty development can provide the economies of scale needed to create and sustain high quality resources, and to insure their effective dissemination.

### ***Developing and Testing Our Solution Model: the CSU Pilot Project***

In the Fall of 2005, the California State University launched a pilot project to test and validate elements of the new strategies recommended in this proposal. The California State University is a system of 23 campuses serving over one of the largest and diverse student population of over 400,000 students in undergraduate programs. With over 11,000 full time faculty and over 10,000 part-time faculty, the CSU has significant challenges for effective and efficient professional development programs that will scale to serve such a large faculty community. Each CSU campus has a director for faculty development and the directors participate in the systemwide CSU Faculty Development Council whose mission is to share and collaborate in faculty development programs in ways that deliver cost effective successes to campuses. It was through this council that the pilot project completed the following activities:

- Conducted an initial scan of online teaching resources within the CSU and across national resource sites resulting from past FIPSE and other projects
- Analyzed the available resources for potential use in faculty development as discipline-oriented illustrations of exemplary teaching practices.
- Engaged faculty on five CSU campuses in the development of prototype resources which would present a case study of an exemplary teaching practice, using the Carnegie Foundation's KEEP toolkit as a tool base.
- Created video case studies of exemplary teaching processes that including reflections by the faculty and the students on the effectiveness and quality of the teaching and

learning experiences.

- Designed extensions to the MERLOT repository to encompass the case stories and link them into other MERLOT elements of teaching expertise.
- Prepared MERLOT institutional partners to participate in project.

***Lessons learned and preparing for success:*** A number of case study and resource sites were examined, including those oriented to an institution, to a particular teaching method<sup>5</sup>, to a particular teaching challenge or issue<sup>6</sup>, those oriented to a discipline<sup>7</sup>, and various combinations. These resources were often of good quality, but in many cases were not achieving widespread use, economies of scale or sustainability. Factors we identified as limiting effectiveness included a lack of connection to the larger community, an absence of social infrastructure to sustain ongoing engagement over time, and a lack of technology infrastructure for discussion and contribution

The CSU pilot studies will conclude in Fall 2006. The pilot has yielded important insights which have been incorporated as principles underlying this project proposal:

- Emphasize *a learner-centered perspective*. Induction workshops for early career faculty are a key opportunity for faculty development. Research has shown a progression from a content-centered perspective toward a learner-centered view [often with a focus on teaching technique as an intermediary step]<sup>8</sup>. One of the challenges noted in the use of online repositories has been the judgment required by faculty to assess how their learners will respond to particular teaching approaches and resources.

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<sup>5</sup> E.g., <http://www.calstatela.edu/dept/chem/chem2/Active/index.htm>

<sup>6</sup> E.g., CL-1 first year science site, <http://www.wcer.wisc.edu/archive/cl1/ilt/case/case.htm>

<sup>7</sup>E.g., our partner Geoscience site at <http://serc.carleton.edu/introgeo/>

<sup>8</sup> M. Prosser, and K. Trigwell, *Understanding Learning and Teaching: The Experience in Higher Education*, (London: Society for Research into Higher Education, Ltd. and Open University Press) 1999.

Insuring that each case story featured voices of learners was deemed to be an important element in helping early career faculty to develop their conceptions of teaching<sup>9</sup> and to make appropriate use of resources in discipline repositories.

- Insure participation from *discipline communities*, including identifying classic instructional challenges in the subject and ongoing management by discipline experts.
- *Engage faculty* through “teacher-to-teacher” communication of process-oriented case stories<sup>10</sup>, using 1<sup>st</sup> Person Teacher Narratives with emphasis on the teacher’s voice and identity. This use of multimedia storytelling has demonstrated benefits for engagement of learners in knowledge exchange<sup>11</sup>, in pre-service teacher training<sup>12</sup>, and in promoting reflective practice.<sup>13</sup>
- Provide *startup resources* which faculty can re-use or adapt to support new practices. The resources augment the 1<sup>st</sup> Person Teacher Narratives to provide a complete case story resource [i.e. a case study + 1<sup>st</sup> Person Teacher Narrative + supporting resources]
- Embed development of case stories in a larger *social infrastructure* for sustainability and a *technology infrastructure* for interconnection across resource sites

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<sup>9</sup> A. Ho, D. Watkins and M. Kelly, The conceptual change approach to improving teaching and learning: An evaluation of a Hong Kong staff development programme, *Higher Education*, v42 n2, pp. 143 – 169, Sept, 2001.

<sup>10</sup> Recent research has documented the effectiveness of process-oriented case studies in fostering a learning-centered perspective in faculty workshops, e.g., A.W.M. Hoogveld, F. Paas, and W.M.G. Jochems, Training Higher Education Teachers for Instructional Design of Competency-Based Education: Product-Oriented Versus Process-Oriented Worked Examples, *Teaching and Teacher Education*, v21 n3 p287-297 Apr 2005

<sup>11</sup> T. Carey, K. Vredenberg and J. Bizzocchi, Interactive Narrative and Knowledge Stewardship, *ACM SigCHI Conference Workshop*, March 2001.

<sup>12</sup> S. Abell, L. Bryan, and M. Anderson, Investigating preservice elementary science teacher reflective thinking using integrated media case-based instruction in elementary science teacher preparation, *Science Education*, v82, n4, pp. 491 – 509, 1998.

<sup>13</sup> Natasha Freidus, Michelle Hlubinka, Digital storytelling for reflective practice in communities of learners, *ACM SIGGROUP Bulletin*, v23 n2, August 2002

In summary, the pilot project validated the faculty development challenges in higher education, and confirmed that our solution model has a very strong potential for success.

### ***MERLOT Faculty ELIXR Project Plan***

We are proposing a large scale design and implementation program that will result in a digital collection of exemplary case story resources that combine disciplinary and institutional contexts for a powerful, reliable, and scalable professional development experience. Each case story will feature faculty who apply an exemplary teaching practice for **E**ngaging **L**earners **I**n **X** [a topic or capability] with **R** [an exemplary teaching practice and resources to re-use]. Directors of faculty development centers and faculty themselves can easily access and re-use these resources to transform their understanding of teaching their discipline. In the process of developing and deploying the services, we will evaluate the processes and outcomes which will be used to develop implementation guidelines for streamlining the ongoing development and application of the case story resources.

To implement and sustain the MERLOT Faculty ELIXR project, the following processes, resources and program components are built into the project plan as outcomes:

**1. Institutionalize governance of MERLOT Faculty ELIXR Project for sustainability.**

The Faculty Development Steering Committee will consist of one representative from each participating system and campus, including the seven campus representatives on the CSU ELIXR Steering Committee. This group has primary responsibility for identifying common themes re exemplary teaching practices to be illustrated by the discipline case stories, for deploying and evaluating the case stories in their own institutions, and for disseminating the results to institutional and professional colleagues. We expect the exemplary teaching

practices diffused through ELIXR to include a mix of a) teaching approaches such as Just-In-Time Teaching or Active Classroom Learning; b) strategies for addressing the special needs of particular groups, including older students, students with perceptual and learning disabilities, and culturally disadvantaged students; c) pedagogical knowledge such as how to detect and debug student misconceptions or how to develop student metacognitive skills. MERLOT will manage the virtual team using proven processes it has used for the last 7 years for its Editorial Boards. The Steering Committee will work with the MERLOT Teaching and Technology Editorial Board and other disciplinary Editorial Boards to infuse ELIXR services into their community portals and training programs.

**2. Guidelines for case story resources:** The main features of the case story resources are: a) a case study describing how and why to use an online resource in teaching the disciplinary topic; b) a first person video narrative capturing the reflections of the faculty learning to use an exemplary teaching practices and at least 4 student reflections on the experience of learning from the faculty; and c) the configuration of the online materials and all the associated peer reviews, comments, and learning assignments that are used in teaching the topic. The initial guidelines for the case study will be those used in the CSU pilot study – an adaptation of the format used in the Carnegie Foundation KEEP toolkit already in use within MERLOT. The elements in the pilot case studies include rationale, tips for teaching, impact on student learning, reflections on personal value. By the end of year 1, we expect to revise the case study guidelines based on the first year evaluation outcomes. Guidelines for the video narrative will include: a) interview prompts, b) video shooting, directing, and editing guidelines for producing consistent and high quality videos of both faculty and student narratives, c) guidelines for selecting students and faculty for

the videos. The third component of the case story resource – exemplary curriculum resources for re-use – will be supported by MERLOT’s Disciplinary Editorial Boards, SERC, and the faculty development directors from the campus partners participating in the grant. We also plan to add at least one additional disciplinary community and portal, to showcase case story resources, in Year 3 of the project.

**3. Training and Dissemination Strategies.** Once the ELIXR resources are created, the proposed project will deploy the resources in 5 different ways. First, the faculty development centers participating in the project will conduct campus workshops. The stewardship of the ELIXR program within each campus will extend ongoing involvement beyond the original case stories and partners supported by the project. The wide range of institutions participating in this project will enable us to evaluate the robustness and replicability of the program . Second, the ELIXR program will become an integral part of MERLOT’s faculty development workshops conducted at our annual conference. The seventh MERLOT International Conference will be held in New Orleans in 2007 and has had an attendance of over 400 participants in the last 3 years. MERLOT will develop the social and technology infrastructure to sustain collaboration across faculty development offices and with discipline community leaders. Third, ELIXR resources will be integrated into the main MERLOT website and the discipline portals and community websites. This strategy will provide open access to the resources for faculty. Fourth, the case story resources will be showcased in MERLOT’s worldwide quarterly newsletter, which is electronically distributed to its 35,000 registered members. Finally, the resources will be integrated into other emerging MERLOT and *Teach the Earth* initiatives, such as the

“Institutional Teaching Commons” which will allow individual campuses to link their local faculty development resources with other disciplinary and pedagogical resources.

#### **4. Successful campus implementation and institutionalization of the ELIXR project.**

Each ELIXR campus and those engaged by systems, will undertake to do the following:

a) use ELIXR case stories in faculty development workshops and participate in their evaluation, especially with early career faculty,

b) develop ELIXR case stories as selected by the Faculty Development Steering Committee. While ownership of the case stories will be subject to institutional and FIPSE policies, all resources developed with project funding support will be made available for individual and institutional use in compliance with the cooperative policies for sustainability established by the Executive Committee for the project,

c) support faculty involvement in contribution to and application of repositories of teaching expertise and exemplary resources, as part of the ELIXR sustainability plan,

d) contribute to dissemination and partnership expansion; and

e) contribute to governance and management.

#### **5. Technology plan.** The ELIXR project requires a number of technology improvements

to MERLOT and discipline repository services that will be planned as the project tasks

progress. There are at least 3 areas of technology changes we anticipate. First, MERLOT and *Teach the Earth* will revise parts of their websites to enable users to easily navigate

and contribute to the case story resource. We expect to modify browse and search

protocols, metadata schemes, MERLOT discipline community portals, and the

interconnections amongst existing pedagogical resources and the new case stories. We will also design a new segment of the websites to provide description of the ELIXR project.

***Outcomes and Evaluation [see also the Outcomes chart/ timeline in Appendix 2]***

***GOAL A: To provide discipline-based examples of exemplary teaching practices***

***◆ Development of case story resources***

- development of target case story resources:
  - 2007 – 16 case stories [targeted as 3 case stories by each of four system partners, and 1 case story by each of four campus partners]
  - 2008 – 32 [targeted as 6 case stories by each of four system partners, and 8 by campus participants, including new campus participants]
  - 2009 – 48 [targeted as 8 by each system partners and 16 by campuses]
- satisfaction of formative evaluation metrics

***GOAL B: Build faculty identity as members of both institutional and disciplinary communities of teachers***

***◆ Deployment in faculty development workshops***

- deployment by institutions developing each case story
- deployment by at least three additional institutions on average for each case

***◆ Change in faculty conceptions of teaching and improved designs for student learning***

- pre and post workshop tests using Approaches to Teaching Inventory or similar?
- self-reports on impact of discipline cases, on the workshops in general, and on application of new teaching practices

***GOAL C: To develop new ways for faculty development centers and online discipline repositories to collaborate on engaging faculty w/ exemplary teaching practices.***

***◆ Deployment in MERLOT and other repositories, access by faculty***

- proportion of faculty choosing to access case, depth of access, duration of access, etc.
- ◆ ***Change in faculty conceptions of teaching and improved designs for student learning***
  - self-directed access to repository resources is typically at point-of-need, e.g., seeking a solution to a particular instructional challenge. The best data available for these remote faculty will be self-reports of impact, subject to the known limitations of self-reports.
- ◆ ***Sustained development and enhancement of case stories and exemplary resources***
  - contributions by discipline faculty to augment case stories and exemplar resources
  - planning and/or development of additional resources by expanded set of partners
  - adaptation of MERLOT cooperative model to sustain ongoing infrastructure.

***GOAL D: To develop, disseminate and sustain social and technology infrastructure for collaboration amongst faculty development offices and discipline repositories***

- ◆ ***Ongoing partnership amongst faculty development offices and discipline repositories***
  - participation by at least one additional discipline repository in ELIXR developments
  - use by faculty developers of other discipline repository resources, e.g., to offer discipline-specific workshops within their institutions
  - use of other resources created by faculty development offices, either by other faculty developers or by discipline repositories.
- ◆ ***Other targeted dissemination activities***
  - offering of workshops on methods and tools, at MERLOT International Conference and other appropriate venues
  - publications and presentations on ELIXR project and outcomes
- ◆ ***Other potential benefits [to be tracked as peripheral benefits from ELIXR project]***

- pre and post workshop awareness by faculty of value to them from discipline community repositories of teaching expertise and exemplary resources
- interest by participating faculty in contributing to share resource spaces
- connections forged amongst institutional, method-oriented & discipline repositories
- interest from parallel projects, supported by FIPSE and others, seeking dissemination approaches for their exemplary teaching practices<sup>14</sup>.

***Evaluation Comments:*** The main goal of the evaluation plan for this project will be to inform our understanding about the impact of such faculty development programs on changing teaching and ultimately on student learning. The evaluation questions and sub-questions guiding the summative evaluation of this project will focus on the following:

- To what level and quality has the project accomplished its goals and objectives?
- How effectively has the project been disseminated and adopted/adapted by US institutions of higher education (both inside and outside of the collaboration)
  - What factors are necessary to ensure successful adoption by others?
- Has the project implemented strategies and plans that indicate long-term sustainability and institutionalization by participating collaboration members as well as others?
  - What are the promising practices associated with short terms sustainability and how might they extend into the long-term?

While the evaluation plan is primarily summative in nature, there will be a focus on formative efforts as well. The nature of the collaboration and the focus on the development of materials and processes to help faculty develop exemplary teaching practices requires that the programs and faculty participate in monitoring their activities in order to improve the professional development programs, and the teaching of participating faculty.

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<sup>14</sup> E.g., we have an expression of interest from the EnACT project, <http://enact.sonoma.edu/>

Essential to the implementation of effective evaluation activities will be the institutions participation in validating and confirming the evaluation questions. They will also provide support in the data collection at the campus level, focusing on formative evaluation. They will provide in-kind support to the project by providing an assessment coordinator who will work with the faculty participants to implement assessment of student learning outcomes and assist in collecting data for the summative evaluation. By building in these evaluation efforts early on in the project, we will ensure that they become a matter of routine and will help to build the evaluation capacity of the participating campuses.

The data collected will be both qualitative and quantitative in nature, employing a pre/post/post study design. Since the project will span three years, we will have the opportunity to pre-test faculty participants regarding their conceptions of teaching – using for example, the Approaches to Teaching Inventory or the Thinking Styles Inventory in Teaching – in Year One and track them over the duration of the project. Faculty will also be surveyed annually to gather information regarding changes to their teaching approaches. Additionally, a content analysis will be conducted on learning designs. In collaboration with specific campuses, several in-depth case studies will be conducted in order to uncover a more in-depth understanding of faculty experiences.

The participating faculty development programs will report on the effectiveness of their training programs as well as on the institutionalization of the project within their own programs. They will collect and report out on the assessment of student learning associated with the faculty development efforts. These data will be examined in aggregate to identify trends in changes in learning and changes associated with the outcomes identified by the faculty participants.

### ***Sustainability:***

Of prime importance for the sustainability of the ELIXR project is MERLOT's sustainable business model, with six years of self-reliant success based on support from systems and campuses who institutionalize MERLOT programs for their faculty, partnerships with professional societies and corporations. These partners represent over 2 million students across the higher education spectrum. We have well-established processes to disseminate project resources and methods to these other members of the MERLOT cooperative.

Furthermore, MERLOT has corporate partnerships with the 3 major Learning Management System corporations (Blackboard/WebCT, Desire2Learn, and Angel). By the end of 2006, each of these companies will have integrated MERLOT digital library services into their LMS. We expect that the easy integration of ELIXR and MERLOT services into campus technology infrastructures will increase the local commitment of faculty development and technology support for ongoing operation.

Evidence of sustainability has been built into the project outcomes, including extending ongoing involvement beyond the original case stories supported by the project, and beyond the initial project partner institutions and discipline communities.

Finally, the design of the project and budget plan has also incorporated a transition process from grant support activities at the early stage of the project to institutional support activities at later stages. The grant to campuses developing case stories is set at \$3,000 in Year 1 of the project, and declines to \$2,000 in Year 2 and to \$1,000 in Year 3. This transition reflects in part the higher costs early on as the project guidelines processes and guidelines are developed. However, it also reflects our determination to move deliberately to ongoing sustainability once the grant funding concludes.

## ***Partners and their roles***

***California State University:*** The CSU is involved at three levels in the ELIXR project:

- As host institution for the MERLOT administrative team, the California State University is the fiduciary agent for the MERLOT cooperative and the applicant institution for this proposal. The CSU Chancellor's Office will host the staff team and reporting for the ELIXR project.
- The CSU Divisions of Academic Affairs and Systemwide Information Technology Resources jointly sponsored the initial ELIXR pilot studies in 2005-06. The CSU plans to continue to invest in these directions and to work with other leading systems and campuses through cooperative projects like ELIXR. The CSU ELIXR Steering Committee, with representatives from seven CSU campuses, will form the core for the expanded ELIXR Steering Committee in this project
- The CSU's Center for Distributed Learning, based at Sonoma State University, has provided both creative and technical staff for the development of the ELIXR pilot studies. As outlined in the Budget Plan below, CDL will continue to play a key role in the initial stages of the project in developing the processes, templates and tools for the 1<sup>st</sup> Person Teacher Narratives in the case stories, and in disseminating these across the partners and beyond in the later stages of the project.

### ***Other System Partners***

Each ELIXR partner system will engage campuses within their system and will provide a representative for the ELIXR project Executive Committee as outlined below under *Governance and Management*.

***Minnesota State Colleges and Universities System*** consists of 32 state universities, community colleges, technical colleges and consolidated community and technical colleges located on 53 campuses across the state. The System serves 235,000 students annually.

***Oklahoma State Regents for Higher Education***, a founding system partner in MERLOT, is the coordinating board for the 25 public colleges and universities in Oklahoma, including two research universities, eleven regional (comprehensive) universities, and twelve community colleges.

***The University System of Georgia*** offers students higher education options at 35 colleges and universities throughout the state, providing a wide range of academic programming, including certificates, associate, baccalaureate, master's, doctoral and professional degrees.

#### ***Campus Partners***

ELIXR campus partners cover a wide range of higher education institutions: public and private; regional and national; two-year, comprehensive and doctoral; some currently MERLOT participants, some not yet participating in MERLOT<sup>15</sup>.

***Brigham Young University***, established in 1875 in Provo Utah, is a private institution of the Church of Jesus Christ of Latter-day Saints. BYU has 28,000 undergraduate students and also offers an extensive range of masters and doctoral programs.

***Coastline Community College*** serves over 18,000 students in a full range of programs from Basic Skills to A.A. degrees and university transfer, through five campuses in Orange County [CA], extensive online programs and special offerings for military personnel.

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<sup>15</sup> All of the partners, whether MERLOT participants or not, have worked collaboratively with other members of the ELIXR team. We are therefore confident that all partners will support the extensive collaboration in the project plan and that the governance/management plan will be feasible.

*Indiana State University* is a doctoral, research extensive, public institution of 10,000 students. ISU integrates teaching and research on a diverse, civically engaged campus.

*The Ohio State University* is a public, national research university and is currently the third largest university in the United States. Its main campus in Columbus and its four regional campuses are home to over 50,000 students. .

### ***Discipline Repository Partner***

To insure a wide range of ideas beyond the MERLOT Discipline Communities and to prepare for the inclusion of other discipline repositories, the Science Education Resource Center (SERC) at Carleton College will be a key Discipline Repository Partner. SERC has developed the *Teach the Earth* portal providing access to the collective work of eight projects supporting instruction in the Geosciences. Collectively these projects represent more than 3000 pages of content including more than 500 examples of Geoscience teaching linked to effective pedagogy.

### ***Governance and Management***

The ELIXR project Executive Committee will provide guidance to the Project Director and Co-Director. In addition to the Project Director and Co-Director, the Executive Committee will consist of representatives from each System and Campus Partner.

The Faculty Development Steering Committee will consist of one representative from each participating system and campus, including the seven representatives on the CSU ELIXR Steering Committee. As outlined above, this group has primary responsibility for identifying common themes regarding exemplary teaching practices to be illustrated by the discipline case stories, for deploying and evaluating the case stories in their own institutions, and for disseminating the results to institutional and professional colleagues.

**Complementary Projects:** other activities are underway to develop innovative social and technology infrastructures to further support the collaborations developed in this project::

- In partnership with the Carnegie Foundation's CASTL Institutional Leadership program, MERLOT is integrating the Scholarship of Teaching and Learning into the processes for faculty contributions to repositories of teaching expertise.
- MERLOT has initiated an investigation with partner institutional and disciplinary portals., to explore ways to connect the wealth of resources on exemplary teaching practice which already exist online, in relative isolation from each other.
- Dissemination of exemplary teaching practices across disciplines is also supported within the parallel NSF funded Starting Point project. This project is creating a shared collection of information on teaching methods and examples of their use across the disciplines that can be customized and incorporated in the websites of partners.

**Summary:**

*Our project brings together the currently separated worlds of faculty development offices and discipline repositories of learning and teaching resources. An innovative alliance between these groups will enhance their efforts to support faculty adoption of exemplary teaching practices. Our evaluation plan uses traditional targets like faculty conceptions of teaching and implementation of new approaches to enhance student learning, along with innovative measures such as spin-off collaborative projects and the participation of new partners. Our project plan emphasizes sustainability and dissemination, including leveraging the successful cooperative model of MERLOT, increasing the production of case stories over time while reducing the level of support [through shared tools and processes for economies of scale], and initiating new activities to further the partnership.*