

Abstract***Reaching Out: Meeting the Needs of Rural School Librarians***

Technology and Innovation in Education (TIE), a division of Black Hills Special Services Cooperative (BHSSC)—in collaboration with State Libraries in North Dakota, South Dakota, and Wyoming—seeks a three-year, \$247,710 Laura Bush 21st Century Librarian Program, National Digital Platform, Continuing Education, Project Grant to enhance the expertise and leadership of rural school librarians in the three-state region and to create a process for replication that other rural regions could adapt. Participants will develop skills needed to utilize Open Education Resources (OER), to integrate digital applications into professional practices, and to serve as instructional leaders in their schools.

Although open to applicants from all rural areas, the target group for this three-year project, July of 2018 through June of 2021, will be librarians in rural school districts with populations of less than 1000. Priority consideration will be given to school librarians in 1) districts, public, private or BIE, located on or within 50 miles from any Tribal Reservation; 2) librarians in Hutterite Colony schools; 3) rural school districts with a K-12 student population of under 500; 4) schools identified as Priority or Focus Schools by the South Dakota Department of Education, the North Dakota Department of Public Instruction, or the Wyoming Department of Education.

This project will address Professional Development (PD) needs of rural school librarians as they transition to a more digital-based learning hub. Through face-to-face and virtual PD opportunities, the project will also provide librarians with opportunities to build capacity as instructional leaders to other school personnel, including teachers, administrators and paraprofessionals.

Goal 1: Through professional development opportunities that build a professional learning community, rural school librarians will develop their expertise in Open Education Resources (OER) and various digital tools.

Goal 2: Through professional development opportunities that build a professional learning community, rural school librarians will develop skills as instructional leaders who work collaboratively with classroom instructors, administrators, and paraprofessionals to implement OER and digital resources into student learning opportunities.

Rural school libraries have seen a drop in funding and a decrease in certified staff. Underlying the project goals and activities is the premise that by providing participants with tools to strengthen their leadership, collaboration, and digital literacy skills, participants will also strengthen their positions within their schools, and become indispensable to administration, teachers, and students within the districts that they serve.

Project activities will include both synchronous and asynchronous learning experiences including yearly face-to-face, two-day sessions; webinars and regional meetings; and online workshops. Throughout the project, PD activities will be enhanced by the building of a community of learners who support each other in the development of their leadership skills in order to collaborate with teachers and facilitate student learning through OER and digital resources. Also key to the project will be the development of a guidebook, based on project activities and participant experiences which can be used to replicate the model in other regions.

Reaching Out: Meeting the Needs of Rural School Librarians

Technology and Innovation in Education (TIE), a division of Black Hills Special Services Cooperative (BHSSC), seeks a three-year, \$247,710 Laura Bush 21st Century Librarian Program, National Digital Platform, Continuing Education, Project Grant to enhance the expertise and leadership of South Dakota, North Dakota, and Wyoming's rural school librarians, including skills needed to utilize online, Open Education Resources (OER), to integrate digital applications into their professional practices, and to serve as instructional leaders in their schools.

STATEMENT OF BROAD NEED

The Every Student Succeeds Act (ESSA) calls for “effective school library programs” that provide professional development (PD) for librarians and library professionals. The American Association of School Librarians (AASL) defines effective school libraries as those led by at least one state-certified school librarian who supports digital learning, participatory learning, inquiry learning, technology literacies, information literacy and up-to-date digital and print materials and technology, including OER. AASL calls for library staff to be capable of providing PD and offering collaboration with classroom instructors.

For rural school librarians, the AASL descriptors are often more idyllic than practical. For example, in South Dakota rural schools situated in high-poverty districts, media centers are as likely to serve as storage space as they are to serve as a personalized or collaborative learning hub for students and teachers. Results from the South Dakota State Library's (SDSL) School Library Data Digest, partially funded by IMLS, reflect this trend. The most recent report reveals that only 25% of total school library staff are certified teacher librarians. Of the 382 active school libraries in the state, 113 are led by certified teacher librarians; the remainder are led either by teachers (79) or paraprofessionals (190), many of whom have few opportunities for professional development. Since the 2012-2013 school year, certified teacher librarians in South Dakota decreased from 152 to 113, a decline of 25.7%. These numbers reflect trends in rural schools nationwide and demonstrate a need to provide support to all remaining rural school library staff—certified teacher librarians, paraprofessionals and classroom instructors assigned as librarian. This proposal addresses the need for additional Professional Development in three rural states—North Dakota, South Dakota, and Wyoming.

Nonetheless, every student, even in the smallest school, deserves the benefits of access to new information and the boost to academic achievement that a quality school library program offers. Knowledgeable, highly trained librarians are critical for an excellent school library that “advances innovation, lifelong learning, and cultural and civic engagement” as stated in the IMLS mission. South Dakota, North Dakota, and Wyoming rural schools face challenges meeting that need. Rural areas mean longer commuting distances, staffing pressure, and less access to continuing education opportunities.

For example, Wyoming, the 10th largest state in the nation at 97,093 square miles is also the least populated state at 579,315 and a population density of 5.8 people per square mile. Professional development opportunities are limited for school librarians in a geographic range as rural as Wyoming. In Wyoming, the number of certified school librarian FTEs dropped from 127.15 during the 2012-13 school year to 94.22 in 2016-17. As a result, the number of students per FTE has risen from 715.6 to 980.0 over the same time frame. In addition, isolation and long distances can hinder opportunities for training and school districts are more likely to promote professional development opportunities for classroom teachers rather than for school librarians, according to Wyoming's State Library School Library Consultant, Paige Bredenkamp. Reaching Out can help bridge that gap by creating professional development opportunities explicitly designed for rural school librarians.

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Currently, the Wyoming Department of Education is spearheading an OER project, “Open Range Wyoming” to be launched, Spring of 2018. Bredenkamp notes the potential savings available through the integration of OER, freely available online teaching and learning resources, “could mean the difference between having certified school librarians in districts and simply having paraprofessionals, or no library staff at all.” Furthermore, Bredenkamp, Daria Bossman, SD State Librarian, and Mary Soucie, North Dakota State Librarian, concur that Reaching Out training opportunities would give rural school librarians a boost in adopting OER and assisting staff with the development of curriculum utilizing OER options.

This project will address the ongoing challenges facing rural school librarians by providing professional development opportunities in a blended format—face-to-face and online—explicitly designed to support the rural librarians’ unique professional needs and to alleviate the challenges of working in an isolated environment where peer support and collaboration with other librarians are often nonexistent. Through professional learning communities initiated during the Year 1 two-day, face-to-face professional development experience, participants will begin the process of building their capacity by participating in activities anchored by the primary outcome of the Future Ready Librarians (FRL) association: to unleash “the instructional leadership of school librarians to foster Future Ready schools.”

The project aligns with the primary requirements of a Laura Bush 21st Century Librarian Grant Continuing Education project type as Reaching Out focuses on improving the knowledge, skills, and abilities of school library professionals through formal and informal programs, including enhanced work experiences, blended learning opportunities, online learning modules, and other Professional Development opportunities. Through professional development across a three-year platform, Reaching Out will provide rural school librarian participants with the skills, professional contacts, and peer support needed for each participant to develop his or her capacity to meet the American public’s changing learning and information needs. This proposal focuses on a key, but too frequently under-recognized, segment of the American public: Rural librarians, particularly school librarians, who when overlooked may not meet their potential impact on the teachers and students with whom they work. Appropriate for the Project Grant category, Reaching Out it supports the development of library leaders through focused professional development opportunities with rural school library staff. At its conclusion, the project will serve as a model that could be integrated in other rural areas across the nation in order to build rural librarian capacity and leadership.

Along with developing a community of learners among rural school librarians, Reaching Out will emphasize key components of the National Digital Platform category through professional development opportunities that build librarian expertise in the development, implementation, and/or use of digital library resources and tools. Additionally, the project will also focus on building the capacity of participants to serve as school leaders in integrating OER. Librarian participants will explore and evaluate various OER platforms (OER Commons, CK-12, Curriki, and Gooru, for example) in order to be able to provide support, guidance, and leadership to classroom teachers who are integrating OER into classroom instructional activities and curriculum.

Reaching Out aligns with the visions and goals of major library organizations. The project is anchored by the recently adopted American Association of School Librarian’s (AASL) National School Library Standards (Supporting Document 1) for AASL *Getting Started with the National School Library Standards: A Guide for School Librarians*). Teacher librarians in rural schools typically would need to explore the new standards in isolation—without support or conversation with peers. An integral aspect of the project, especially in Year 1, will be to unpack the standards with rural teacher librarians so they will be prepared to serve as instructional leaders who can support the integration of the standards as they collaborate with teaching staff on lessons and projects to promote student learning. The project’s professional development activities are also designed to support Future Ready Librarians (FRL), an expansion of the Future Ready Schools (FRS) Initiative, a project supported by Follett and AASL. In addition, the Wyoming Department of Education has formally joined the

Future Ready Initiative and education departments in both South Dakota and North Dakota support the initiative goals. The Reaching Out project addresses FRL’s two guiding questions:

1. How can librarians and libraries support Future Ready Schools?
2. How can librarians and libraries become more Future Ready?

Throughout the grant, PD opportunities will be aligned with the FRL focus that revolves around two of the FRL’s “gears” (Illustration 1, below; complete document, Supporting Document 1):

- Personalized Professional Learning
- Curriculum, Instruction, and Assessment

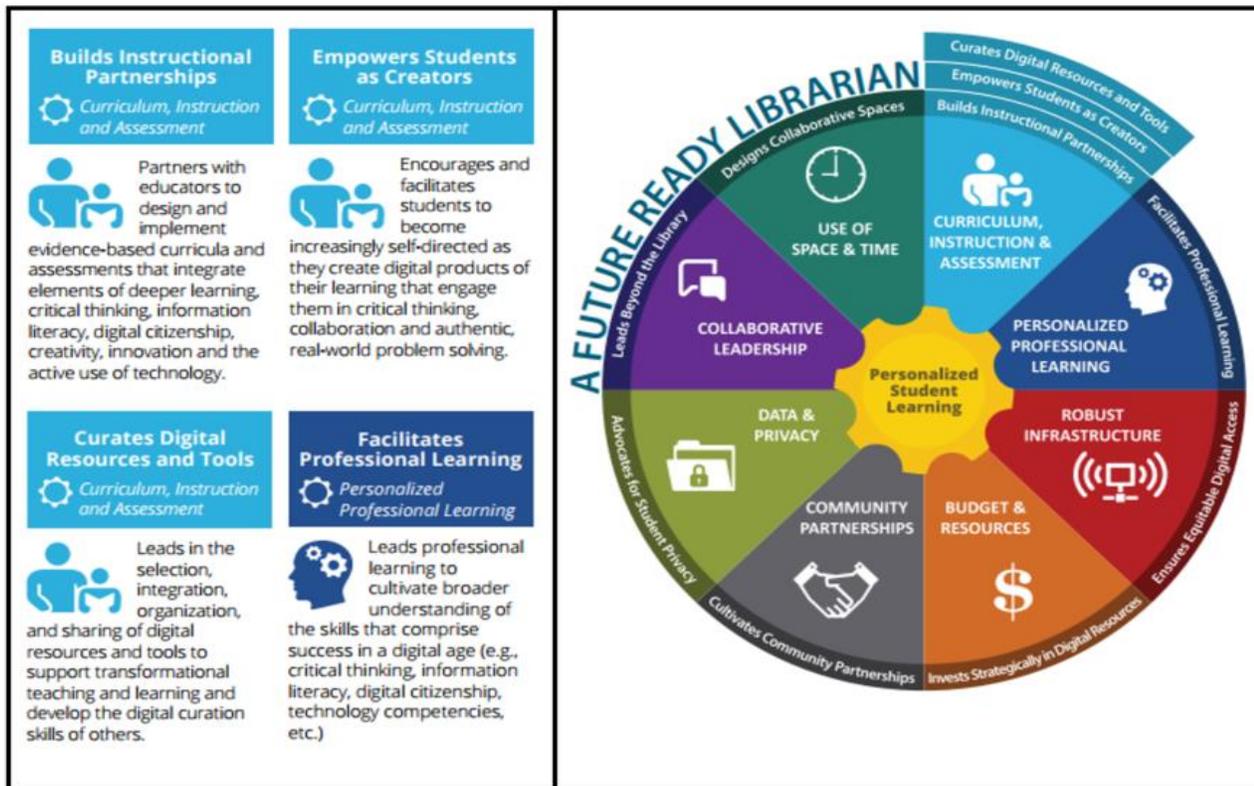


Illustration 1: Future Ready Librarian Framework

Additionally, the project supports the mission of ARSL by providing opportunities for continuing education, providing mechanisms for rural libraries to exchange ideas and to meet, and building leadership skills among rural librarians. Participant school librarians and project staff will share project findings and artifacts with ARSL—especially as they align to ARSL’s objectives of (1) serving as a source of current information about trends, issues, and strategies and (2) collecting and disseminating information and resources that are critical to this network (ARSL “Voice of Rural and Small Libraries”).

The focus on librarians as leaders is in juxtaposition to the reality at many rural libraries where the librarian is too often a part-time position or a non-certified paraprofessional. While this proposal cannot resolve that circumstance, the premise is that strengthening leadership skills and digital literacy of existing school librarians will further ensure their job stability since they will become more integral to the successful student learner through increased collaborative activities with classroom instructors and students. Furthermore, by developing their own libraries into digital centers of learning, the librarians will make strides in returning their libraries into hubs of student learning, research, and idea developing—hubs that can be transformed into learning centers where “printed books continue to play a critical role in supporting learners, but digital technologies offer additional pathways to learning and content acquisition” (Holland, 2015).

Current AASL president, Kathryn Roots Lewis, addressed the need for an increased emphasis on school librarians as leaders in a 2015 *Teacher Librarian* article, “The School Librarian and Leadership: What Can Be Learned?” She emphasized that traditional checkout statistics can show that a library is busy and used; however, those statistics don’t show the effects. As a result, she urges librarians to “go deeper; focus on your impact on student learning and teaching” (Lewis, 2015, p. 20). School librarians participating in Reaching Out will explore ways that they can “go deeper” by analyzing impact through examples of co-teaching experiences, leadership activities, technology use, and guided inquiry processes. Lewis’ focus stemmed, in part, from results of research conducted in 2014 by David V. Loertscher, School of Library and Information Science professor, San Jose State University, and past AASL president. Loertscher’s study of 12 schools revealed that when classroom teachers co-teach with a librarian “the number of students who met or exceeded the teacher’s highest expectations for a learning experience increased from 32-59% to 70-100%” (Loertscher, 2014, p.10).

PROJECT DESIGN

Goals and Outcomes: This project will address Professional Development needs of rural school librarians as they transition to a more digital-based environment. Through face-to-face and virtual PD opportunities, the project will also provide librarians with opportunities to build capacity as instructional leaders to other school personnel, including teachers, administrators and paraprofessionals.

Goal 1: Through professional development opportunities that build a professional learning community, rural school librarians will demonstrate expertise in OER and various digital tools.

Goal 2: Through professional development opportunities that build a professional learning community, rural school librarians will further develop skills as instructional leaders who work collaboratively with classroom instructors, administrators, and paraprofessionals to implement Open Education Resources (OER) and digital tools into student learning opportunities.

- Reaching Out will offer synchronous and asynchronous PD opportunities. The project will be anchored by the primary outcome of the Future Ready Librarians (FRL) association: to unleash “the instructional leadership of school librarians to foster future ready schools.”
- With support and input from State Libraries in South Dakota, North Dakota, and Wyoming, project staff will coordinate opportunities in all three states and build an online network of librarians in rural areas.
- Throughout the grant, PD opportunities will be aligned with the FRL principles that revolve around the Future Ready Schools’ (FRS) framework of seven “gears”—in particular, Personalized Professional Learning and Curriculum, Assessment, and Instruction (Illustration 1, above).
- Each year one two-day, face-to-face training will provide opportunities for participants to build skills and to become involved in a professional learning community. In year one, the two-day, face-to-face training will be held in Gillette, WY; in year two, the training will be in Rapid City, SD; and in year three, the training will be in Bismarck, ND.
- Virtual training opportunities, TIE Conference meet-up, and online for college-credit workshops will expand upon concepts introduced in face-to-face sessions and explore other content in support of the state goals above. (Illustration 2, page 6, includes a schedule of project activities.)
- Participants will receive free registration to the annual South Dakota TIE Conference, the largest education and technology event in the region. The conference focuses on instructional practices and technology applications for school administrators, teachers, computer/tech coordinators, librarians, and media specialists. Each year, the conference brings about 1500 educators from South Dakota and neighboring states, and exhibitors from all over the nation to its location, which rotates annually between South Dakota’s two largest cities: Rapid City (2019, 2021) and Sioux Falls (2020).

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- Reaching Out will offer college credit through Black Hills State University, Spearfish, SD, and the University of Sioux Falls, Sioux Falls, SD. College credit, up to four credits per year, will be covered through the project budget and offered free of charge to participants. Continuing Education Credits (CEU) will be available upon request.
- Beginning in Year 2, Reaching Out will utilize the OER Curation Framework, now under development through a IMLS grant to the Institute for the Study of Knowledge Management in Education (ISKME)
- Throughout the project, Director Julie Erickson, TIE Learning Specialist, will lead the development of face-to-face components and complementing online learning opportunities in order to provide participants with a blended learning experience. In addition, the project director will work to build relationships with State Librarians (or representatives that they have selected) in SD, ND, and WY. She will also share project reports with national associations including AASL and ARSL.
- The State Librarians (or representatives that they have selected) will serve as Advisory Council members, provide input into the project activities, online workshop development, and help analyze project feedback for any needed adjustments and/or modifications.
- Erickson will work with Consultant Joan Upell, Assistant Project Director and former SDSL School Library Coordinator, who has served as a certified teacher librarian in Illinois and South Dakota schools. Both Erickson and Upell have earned Masters of Library Science degrees and are recognized in the region for their expertise in digital literacy.

Potential Risks: The only identified potential risks in the project would be a possible decrease in project participation over its three-year implementation, due to changing career interests, school funding, and/or job relocation. As a result, the project is designed to allow new participants to fill any spaces that open due to attrition. The project activities will be designed to complement each other without presenting a need for pre-requisites.

Success Indicators: Project success will be defined through a variety of mechanisms including the following:

- Surveys (to be designed by the Project Director and Assistant Director with input from Advisory Council Members)
 - Surveys of teacher-librarian participants
 - Surveys of principals from schools where teacher-librarian participants are employed
 - Surveys of instructors with whom teacher-librarian participants have collaborated
- Successful completion of project activities (Illustration 2, page 6)
 - Yearly face-to-face, two-day sessions (if taken for college credit, C or above)
 - Yearly webinars and/or TIE Conference meet-up during each Spring Semester (if taken for college credit, C or above)
 - Online workshops (if taken for college credit, C grade or above)
- Participation in a Facebook group created for the teacher librarian participants to allow for collaboration, communication, and peer support. Participants will also be encouraged to join the Future Ready Librarians group on Facebook to connect with a larger national cohort of librarians.
- Documented examples of evidence of learning and collaborative teaching experiences
 - Examples of implemented activities that support reading or writing (Years 1, 2, 3)
 - Examples of co-teaching experiences using the 2017 AASL Standards (Years 1, 2, 3)
 - Examples of leadership activities with staff, including non-certified librarians (classroom instructors or paraprofessionals assigned to a school librarian role) that promote teaching and learning (Years 1, 2, 3)
 - Examples of phases of a guided inquiry unit that show student reflections and evidence of student success (Year 3)

YEARLY SCHEDULE	FACE-TO-FACE	WEBINARS/MEETINGS	ONLINE COURSES
<p>YEAR ONE: Content Developers: Julie Erickson, Project Director Joan Upell, Assistant Project Director Alissa Adams, SDSL School Library Technology Coordinator, Advisory Council Input</p>	<p>Gillette, Wyoming Day 1: Future Ready Librarians AASL National School Library Standards Day 2: Intro to Digital Literacy Intro to OER <i>Required: Both days (1 college credit, Fall)</i></p>	<p>Digital Literacy OER—Top 10 Building a Professional Learning Community Librarian as Advocate Meet-Up at the TIE Conference: Spring 2019 <i>Required: 1 session & TIE Conference OR 3 Sessions (1 college credit, Spring)</i></p>	<p>FALL: Learning & Using the AASL National School Library Standards (Adopted 2017) SPRING: OER Commons and the Librarian: Search, Gather and Assess <i>Required: Each semester course (2 college credits: 1 Fall and 1 Spring)</i></p>
<p>YEAR TWO: Content Developers: Julie Erickson, Project Director Joan Upell, Assistant Project Director Alissa Adams, SDSL School Library Technology Coordinator, Advisory Council Input</p>	<p>Rapid City, South Dakota Day 1: Librarians Lead with OER and Digital Resources Day 2: ISKME’s OER Curation Framework <i>Required: Both days (1 college credit, Fall)</i></p>	<p>Librarians in the Classroom Flipped Classrooms Digital Storytelling Going Deep: OER Commons Meet-Up at the TIE Conference: Spring 2020 <i>Required: 1 session & TIE Conference OR 3 Sessions (1 college credit, Spring)</i></p>	<p>FALL: Building Collaborative Relationships SPRING: Exploring the OER Curation Framework <i>Required: Each semester course (2 college credits: 1 Fall and 1 Spring)</i></p>
<p>YEAR THREE: Content Developers: Julie Erickson, Project Director Joan Upell, Assistant Project Director Alissa Adams, SDSL School Library Technology Coordinator, Advisory Council Input</p>	<p>Bismarck, North Dakota Day 1: The Librarian’s Role in Inquiry Based/Problem Based Learning Day 2: Research, Term Papers, and Academic Writing <i>Required: Both days (1 college credit, Fall)</i></p>	<p>Flexible Curriculum & Personalized Learning The Guided Inquiry Journey There’s an App for That! Pulling It All Together: What Have We Learned? Meet-Up at the TIE Conference: Spring 2021 <i>Required: 1 session & TIE Conference OR 3 Sessions (1 college credit, Spring)</i></p>	<p>FALL: OER: Curate and Create SPRING: Working Together: Inquiry Learning Using OER <i>Required: Each semester course (2 college credits: 1 Fall and 1 Spring)</i></p>

Illustration 2: Yearly Activities

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Building expertise in OER becomes essential in rural school districts where budget cuts threaten not only school libraries but up-to-date course content. Expertise in OER curation and creation addresses the challenge of providing quality resources despite monetary concerns. Throughout the project, all sessions will be designed to build participant competencies in using OER so that they will be able to return to their schools as instructional leaders who can:

- Communicate the qualities of an effective OER;
- Describe OER that support flexible curriculum;
- Explore online sites that support the curation and creation of OER;
- Identify and utilize tools for curation;
- Curate and create OER content;
- Evaluate and communicate Creative Commons licensing;
- Evaluate Creative Commons materials using rubrics.

Implementation and Management Plan: The Project Team will consist of Julie Erickson, project director; Joan Upell, assistant project director; and Alissa Adams, the SDSL School Library Technology Coordinator. The trio will develop project content. Erickson's and Upell's project days will be covered through the project (see Budget documents) while Adams' support will be in-kind (without cost to the project) through the partnership with the SD State Library. In addition, the Project Design Team will meet with the Advisory Council twice yearly during the duration of the project. The Advisory Council will include Project Team members along with representatives from the South Dakota State Library, North Dakota State Library, and Wyoming State Library, who will participate in-kind (without cost to the project). (Support Letters included in Supporting Documents 3.) Project team members all have demonstrated experience working with librarians, para-professionals, technology coordinators, teachers, and administrators across the geographic regions included in this proposal in a variety of professional development opportunities such as technology boot camps, digital applications, flipped classrooms, 21st Century learning, personalized learning, inquiry-based learning, and OER. In addition to the Project Design Team and the Advisory Council, each year Certified Teacher Librarians will be contracted to facilitate online workshops—one each semester at \$1,000 per workshop.

Project Design Team

Julie Erickson, Project Director: Erickson, a TIE learning specialist, works extensively with educators on building leadership skills and integrating digital applications and customized learning approaches into classroom instruction. Her expertise includes computer science fundamentals, digital literacy, technology integration, makerspaces, OER, project evaluation, and Geographic Information Systems (GIS). In addition to developing and facilitating professional development in both face-to-face and online formats, she has designed and led numerous online for college-credit workshops. She has worked extensively as a learning coach with administrators, librarians, and instructors in rural schools. Erickson, who holds a Master of Arts in Information Resources and Library Sciences from the University of Arizona, Tucson, joined the TIE team in 2015 after serving as the South Dakota State Library Electronic Services Coordinator from 2006-2015.

Joan Upell, Assistant Project Director: Upell is a certified teacher librarian who holds a masters degree in library science from the University of Michigan. She currently teaches Language Arts at Cheyenne-Eagle Butte Junior High and has been an adjunct instructor in the Humanities Department at Oglala Lakota College, Cheyenne River College Center, Eagle Butte, located on one of the nine Tribal Reservations in South Dakota. A past SDSL School Library Coordinator from 2008 to 2016, Upell has led extensive professional development opportunities for teachers, librarians, technology integrationists, and library para-professionals. She has been a librarian in both school and public library settings. While serving the SDSL School Library Coordinator, Upell was also the coordinator of the SDSL Boot Camp for school librarians, technology integrationists, and para-professionals from 2012 to 2016.

Alissa Adams, SDSL School Library Technology Coordinator: Adams coordinates programming at the state level in terms of school library management, curriculum, technology, and personalized learning. She has

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designed and facilitated a variety of continuing education workshops for 400+ school librarians. In her role as the School Library Technology Coordinator, Adams collaborates with private and public entities such as SD DOE, TIE, and the South Dakota Library Association (SDLA). Adams' experience including developing websites to enhance programming and communication and maintaining social media feeds to promote, communicate, and advocate. She has led the state-wide review process of school library standards while also maintaining and using data to promote school libraries.

Advisory Council

Daria Bossman, South Dakota State Librarian: Bossman served as librarian in both public and collegiate settings before joining the South Dakota State Library, South Dakota Department of Education (SD DOE) in 2008. She has been the State Librarian since 2013. During her time as State Librarian the primary focus areas have included Library services and informational needs of Tribal Reservations; rural public library sustainability; 21st Century school libraries; public library Common Core connections; combination school and public libraries; and sustainable programming for public and school librarian training.

Carmen Redding, School and Youth Services Specialist, North Dakota State Library: As the School and Youth Services Specialist, Redding serves as the ND State Library's resource person and liaison for public school libraries. She also coordinates for the ND Collaborative Summer Library Program (CSLP) and serves as the state representative to the Young Adult Library Services Association (YALSA). From 2006 to early 2017, Redding was the teacher librarian and an English instructor at Turtle Mountain Community High School located on the Turtle Mountain Reservation in Belcourt, ND. While school librarian at Turtle Mountain Community High School she served as an instructional leader by introducing web-based tools into teaching platforms and collaborating with teachers and administrators to utilize Turnitin, VariQuest and Stem-It.

Jamie Markus, Wyoming State Librarian: Markus is a library administrator, statewide library development director, and Library Services and Technology Coordinator specializing in rural public, school, and institution libraries. He manages large public and private grants and plans, creates, and promotes original educational content for library stakeholders. Markus is a member of National Governors' Association's K-12 Broadband and Digital Learning Policy Academy and a member of the Wyoming Department of Education's Statewide Digital Learning Plan Advisory Panel.

Project Design Team Members: Erickson, Upell, Adams

Sequence and Dissemination of Events/Trainings: Illustration 2, page 6, and the Schedule of Completion describe the yearly sequence of events. In addition, Success Indicators, page 5, and Sharing of Project Findings, below, describe methods of dissemination and sharing, which include posting all materials on a project web page linked from the TIE site, authoring articles for professional journals, electronic and print, and presenting at educational and library conferences. Event and workshop descriptors/summaries are included in the attached Supporting Document 2. The guidebook will serve as the project's culminating resource.

Sharing of Project Findings: Project findings and experiences will be shared through a variety of methods, including the following:

- Teacher librarian participants will have the opportunity to present at the yearly Technology and Innovation Conference, the largest technology conference for educators in the three-state region (North Dakota, South Dakota, and Wyoming).
- Teacher librarian participants, Advisory Council members, and/or project directors will share experiences with peers from a 12-state region at the annual Mountain Plains Library Association's Regional Conference.
- South Dakota, North Dakota, and Wyoming State Libraries will share project fundamentals and results on their websites, via press releases, and at their respective yearly conferences.
- Project directors will submit presenter proposals to relevant national conferences including AASL, International Society for Technology in Education (ISTE), and Internet Librarian/Internet at Schools.

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- TIE’s relationships with the State Library organizations in WY, ND, and SD will allow for communication with school library consultants belonging to the Council of State School Library Consultants (CSSLC), and the Chief Officers of State Library Agencies.
- Project team members will develop articles that share learnings, successes, and challenges with various library publications including *Teacher Librarian*.
- The culminating guidebook, designed so other rural regions can replicate the process, will be shared via TIE’s website and will be submitted as a professional development resource to OER Commons.

Input and Consensus Building: While the Project Design Team will develop initial plans for recruitment, surveys, data collection, and project activities, all elements will be reviewed and approved by the Advisory Council before integration, either during twice-yearly meetings or through email communications.

Informed by Theory and Practice: As noted in the Statement of Broad Need, the project aligns to the tenets of the newly adopted (2017) AASL National School Library Standards, the Future Ready Schools, and Future Ready Librarian Initiatives. Specifically, the project addresses the emphasis on librarians in leadership roles, librarians as collaborators, librarians as curators of OERs resources, and librarians as experts in digital literacy.

One of the challenges facing rural school librarians is the physical distance that separates professional peers from each other. As a result, Reaching Out utilizes a blended approach—offering both synchronous and non-synchronous—learning opportunities for participants. This blended learning design is built on a pedagogical foundation that can be associated with numerous learning theories including:

- Constructivist Learning Theory, humans construct knowledge from their own learning and experiences (“Constructivism as a Paradigm for Teaching and Learning,” 2004);
- Andragogy or Adult Learning Theory, the best learning environments for adults are the ones that are collaborative and use a problem-solving approach while offering learnings the opportunity to direct their own learning goals with the guidance of mentors or course facilitators (Pullagurla, 2014); and,
- Situated Learning Theory, the idea that learning involves a deepening process of participation in a community of practice (Smith, 2009).

Reaching Out adopts the Enriched Virtual Model of blended learning. In this approach, learners participate in both face-to-face sessions and online sessions. In adherence to adult learning theory, an element of choice is integrated (Nanda). While attendance at the face-to-face sessions, which kick-off each year’s experiences, and participation in the online workshops are required, participants will have the option to choose which webinars and/or mid-year meeting session to attend.

Meeting the Needs of Underserved Populations: Meeting the needs of underserved populations is the primary focus of this project. As noted previously, rural school libraries all too frequently receive budgetary cuts. Underlying the project goals and activities is that by providing participants with the tools to strengthen their leadership, collaboration, and digital literacy skills, they will also strengthen their position as indispensable to administration, teachers, and students within the districts they serve.

Diversity Plan

Although open to applicants from all rural areas, the target group for this project will be public, private or Bureau of Indian Education (BIE) schools located on or within 50 miles from any Tribal Reservations, Hutterite Colony schools, and rural school districts with a K-12 student population of under 500 and identified as Priority or Focus Schools by the SD Department of Education, the North Dakota Department of Public Instruction, and the Wyoming Department of Education. The second tier of participants will include schools listed above but not identified as Priority or Focus Schools. The third tier will be schools across the states with K-12 student populations between 500 and 1000. Participants will be selected on a competitive basis based on criteria including alignment with the target tiers noted above, administrative recommendation and support, certification

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as a teacher librarian, and willingness to commit to three years of participation. Thirty-nine librarians, 13 from each of the participating states, will be accepted into the program. Since some attrition will occur, applications will remain on file to fill openings that may occur in years two and three of the project. Certified teacher librarians will receive the highest priority. Invitations to apply will be sent to librarians in school districts as described in the priority/tiered categories above. In addition, librarians in communities where the school and public library is one shared facility will be invited to apply to the project. Key to the project's long-term sustainability is the capacity of project participant librarians to return to their districts and provide mentorship, not only to teachers but also to the paraprofessionals and other staff working in library settings.

BROAD IMPACT

Although this project focuses on rural school libraries in the rural states of North Dakota, South Dakota, and Wyoming, throughout the project's development, the project team has looked outward and considered the need to develop a program that has the potential to extend well beyond the geographical borders of this region.

A review of literature suggests similar conditions and circumstances face rural school libraries across the nation: a lack of funding, a lack of time for collaboration with classroom instructors, a lack of opportunities to serve as school leaders, and a lack of administrative support for integrating digital literacies. These challenges, combined with an overuse of aides or paraprofessionals as substitutes for certified teacher librarians, have hampered the effectiveness of rural school librarians. So, during project planning, the directors considered not only ways that the goals, outcomes, and activities would be beneficial to the region identified here, but also the ways that this project could extend to rural school libraries beyond South Dakota, North Dakota, and Wyoming. Therefore, a guidebook will be developed as the project evolves. At the end of the project, the finalized OER version, adapted from feedback data and updates, will be provided by TIE on the organization's [website](http://tie.net) (tie.net) and submitted as a resource to OER Commons. However, throughout the project, resources and materials will be shared digitally on TIE's website and in other formats, including sharing PowerPoints of webinars to YouTube. While the guidebook will provide a tangible product for replication by states outside of the identified region, numerous other dissemination methods will be put in place to develop a larger geographic context for the work as it evolves. (Dissemination methods, detailed in Sharing of Project Findings, page 8.)

The project's focus on developing participant skills in identifying, locating, collecting, and assessing OER lessons and units will take into consideration the ever-changing and evolving OER landscape. For example the project design team will reach out to current project and research endeavors focused on OER curation and integration. Such endeavors would include the Open Range project in Wyoming and the Institute for the Study of Knowledge Management in Education's (ISKME), creators of OER Commons, May 2017-April 2019 IMLS project, Exploring OER Curation and the Role of School Librarians. Included in the ISKME project objectives is the examination of paths for school librarians to take on leadership roles in OER collaboration, implementation, curation, and promotion. One of the ISKME project's outcomes is the development of a framework for OER curation, a framework that will be explored during the final two years of the Reaching Out project so that participants are able to integrate learnings from the ISKME research study into their own professional practice and to share those learnings with peers in their school districts.

Success Indicators (page 5) will be used to collect and report feedback. Data will be reported each year on the TIE website, at conference presentations, and in articles submitted to library journals. Data, articles and the guidebook/handbook will be accessible at no charge to any interested parties. At the end of each year, the Project Directors will compile data and provide a report to the Advisory Council to determine if adjustments need to be made to upcoming activities. A final, cumulative report will be developed at the project's conclusion. This final report will be submitted to the Advisory Council and posted to project's web page, linked from the [TIE's website](http://tie.net) (tie.net). In addition, any IMLS reporting requirements will be met.

DIGITAL PRODUCT FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (i.e., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. However, applying these principles to the development and management of digital products can be challenging. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

Instructions

Please check here if you have reviewed Parts I, II, III, and IV below and you have determined that your proposal does NOT involve the creation of digital products (i.e., digital content, resources, assets, software, or datasets).

You must still submit this Digital Product Form with your proposal even if you check this box, because this Digital Product Form is a Required Document.

Instructions

If you ARE creating digital products, you must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

Part I: Intellectual Property Rights and Permissions

A.1 What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

The copyright on project documents, materials, and presentations, including webinars, feedback summaries from online surveys, web-based articles, and outlines/syllabi for workshops will be assigned an open license using Creative Commons. Project staff and participants who submit articles to journals will prioritize submissions to at least one open access journal that stipulates Creative Commons licenses. However, copyright on any articles published within academic journals will be determined by the journal's permission policies. The copyright for original content that may be created by participants or project partners will be held by the authors although they will be encouraged to apply a Creative Commons Attribution (CC BY 4.0) license to their shared works from among the six Creative Commons licenses available.

A.2 What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

All digital content created by TIE staff, participants, or consultants during the course of the project will be the property of TIE and will carry a Creative Commons license. This content will include lessons, activities, and presentations developed by participants in order to address the project's Success Indicators. All content will be openly accessible in digital format and available online on the TIE (tie.net) website. Articles or resources created independently by participants as a result of their experiences in the project are owned by the participant author and may be made publicly available on sites of their choosing, including the TIE (tie.net) website. All participant authors will be encouraged to apply a Creative Commons Attribution (CC BY 4.0) license to their shared works from among the six Creative Commons licenses available.

The project will be using social media through a Facebook group page. This page will be private—only project participants and staff will have access to the page which will be used solely for communication with each other and for building a community of learners. Membership to the page will be obtained by request to the Project Manager. The Facebook page will be maintained by TIE for a duration of five years in order to encourage ongoing interaction among the project participants.

A.3 If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

This Digital Platform project will not create materials that involve privacy concerns, require obtaining permissions or rights, or that raise cultural sensitivities. If photographs or videos are taken and or published of adult learners involved in the project, signed media release forms would be obtained.

Part II: Projects Creating or Collecting Digital Content, Resources, or Assets A. Creating or Collecting New Digital Content, Resources, or Assets

A.1 Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and format you will use.

During the project TIE will create (without cost to the project), a Reaching Out project page linked directly from TIE's website (tie.net). Project materials, resources, articles, reports, and the culminating project guidebook will be organized and publicly available, without charge for access or download, on this site.

In addition, resources, the guidebook, and other materials will be submitted, as appropriate to OER Commons and will follow their guidelines for submission and formatting.

PowerPoints created for webinars will be shared on YouTube for web viewing and on the TIE project web page.

A.2 List the equipment, software, and supplies that you will use to create the content, resources, or assets, or the name of the service provider that will perform the work.

Content created for the project (webinars, meeting presentations, workshop content) will be developed by the Project Design Team or TIE consultants using TIE's or personal equipment and software (including resources available through TIE Media Services Division), including Microsoft Office and Google Docs.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

Reaching Out will not be converting existing physical or digital content into new formats for this project. Project resources created on the TIE website and in OER Commons will be created in HTML and/or available for viewing and download as PDF. Participants may embed openly licensed digital content into their resources in their original format.

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan (i.e., how you will monitor and evaluate your workflow and products).

Project Design Team members and TIE Media will review and monitor all digital media, communications, and papers to ensure they adhere to project goals and objectives. Additionally, content created by project participants as part of successful completion will be required to align to project goals.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout

for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

Materials created through the project will be published on the TIE website (tie.net) and maintained for a period of no less than five years.

C. Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify which standards you will use for the metadata structure (e.g., MARC, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

OER Commons uses a variety of categories and labeling to organize resources and help users access what they need. Metadata is added by resource creators and OER Commons administrators. They describe various aspects of the items, including grade level, subject area, and material type.

According to the Institute for the Study of Knowledge Management in Education (ISKME), OER Commons uses a modified Learning Object Metadata (LOM). The framework includes educational metadata elements (LRMI), aligns to the Common Core State Standards and is evaluated against Achieve.org Quality Rubrics and Achieve.org EQUIP Rubrics. Metadata of evaluated resources will be submitted to the Federal Learning Registry.

C.2 Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

Metadata created through OER Commons is saved via multiple back-up protocols and cloud servers for ten years, according ISKME project's Exploring OER Curation and the Role of School Librarians.

Likewise, electronic data will be stored on TIE's secure Windows 2008 SQL database server and files will be password protected to be accessible only to TIE staff conducting the study. Strict procedures are in place for creating complex passwords that are very difficult to deduce, and staff are required to change their personal passwords frequently. TIE Internet and e-mail applications are handled by separate servers and are protected from unauthorized access by a firewall. Files are updated daily.

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

Metadata from OER Commons is contributed to the Learning Registry for access and use by other entities. OER Commons provides its metadata template at:

https://docs.google.com/spreadsheets/d/10_onA0BhkN4UuPcC97bISxMj8rdQmHQ9jvA2nJfuJbw/edit#gid=162779616

D. Access and Use

D.1 Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content).

All digital content created through the project will be freely accessible, openly licensed, and reside on the TIE website and/or on OER sites such as OER Commons.

D.2 Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

Previously created content by TIE projects can be found via the TIE website: <https://tie.net>. These projects include but are not limited to the following:

TIE Media Services Division: <https://www.tie.net/media-services/>

WoLakota Project: <http://www.wolakotaproject.org/>

CODE Training: <https://www.tie.net/code-training/>

Self-Paced Workshop: <https://www.tie.net/self-paced-workshops/>

Course Listings: <https://www.tie.net/course-listings/>

Part III. Projects Developing Software

A. General Information

A.1 Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

NA

A.2 List other existing software that wholly or partially performs the same functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

NA

B. Technical Information

B.1 List the programming languages, platforms, software, or other applications you will use to create your software and explain why you chose them.

NA

B.2 Describe how the software you intend to create will extend or interoperate with relevant existing software.

NA

B.3 Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

NA

B.4 Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

NA

B.5 Provide the name(s) and URL(s) for examples of any previous software your organization has created.

NA

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). Explain and justify any prohibitive terms or conditions of use or access and detail how you will notify potential users about relevant terms and conditions.

NA

C.2 Describe how you will make the software and source code available to the public and/or its intended users.

NA

C.3 Identify where you will deposit the source code for the software you intend to develop:

NA

Name of publicly accessible source code repository: NA

URL: NA

Part IV: Projects Creating Datasets

A.1 Identify the type of data you plan to collect or generate, and the purpose or intended use to which you expect it to be put. Describe the method(s) you will use and the approximate dates or intervals at which you will collect or generate it.
NA

A.2 Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?
NA

A.3 Will you collect any personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).
NA

A.4 If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.
NA

A.5 What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).
NA

A.6 What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?
NA

A.7 What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?
NA

A.8 Identify where you will deposit the dataset(s):
NA
Name of repository: NA
URL: NA

A.9 When and how frequently will you review this data management plan? How will the implementation be monitored?
NA

**Technology and Innovation (TIE), a Division of Black Hills Special Services Cooperative (BHSSC)
Reaching Out: Meeting the Needs of Rural School Librarians**

IMLS Laura Bush 21st Century Librarians Program: Project Grant, National Digital Platform, Continuing Education

Schedule of Completion: Year Three July 1, 2020-June 30, 2021

Events	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Refine two-day, face-to-face session (Librarian's Role in Inquiry Based Learning; Research, Term Papers and Academic Writing), Secure college credit for year 3 activities (Erickson, Upell, Adams)	■											
Refine Year 3 webinars: Flexible Curriculum/Personalized Learning, The Guided Inquiry Journey, There's an App for That, What Have We Learned? Develop Yr. 3 Workshops: OER: Curate and Create & Working Together: Inquiry Learning Using OER (Erickson, Upell)		■										
Conduct 2-day, face-to-face session, gather feedback (Erickson, Upell, ND Library Rep)				■								
Conduct virtual Advisory Council session (Design Team, Advisory Council)				■								
Facilitate online workshop: OER: Curate and Create (Certified Teacher Librarian TBD)				■								
Conduct 4 webinars (Erickson, Upell)							■					
Develop TIE Conference Presentation, present session facilitate meet-up (Erickson)									■			
Assist participants in posting to OER Commons (Erickson, Upell)								■				
Facilitate online workshop: OER: Search, Gather, Assess (Teacher Librarian TBD)								■				
Conduct surveys for final reports (Erickson)										■		
Expand, finalize and publish guidebook based on 3-year project sessions, webinars, meetings, workshops, experiences, feedback (Erickson, Upell)									■			
Post materials and resources to project website (tie.net); develop and submit final reports and feedback (Erickson)											■	
Final Advisory Council Meeting (full team)												■

Throughout the project, Design Team members will work with participants to develop and present articles, reports and project learnings.