

Young Adult Library Services Association, RE-95-18-0048-18

Leveraging Computer Science to Build Connected Teen Services: Best Practice, Knowledge & Skills will train 10,000+ library staff across all 50 states in best practices in library services for/with teens. The project will use the lens of facilitating computer science (CS) and computational thinking (CT) activities to prepare teens for personal and professional success, and be implemented by YALSA in partnership with COSLA.

STATEMENT OF BROAD NEED

Principles for successful teen services as framed in the 2012 report by Dr. Mimi Ito, et. al., “Connected Learning: An Agenda for Research and Design,” (<http://bit.ly/2iOeKoh>) and in YALSA’s 2014 Futures Report, “The Future of Library Services for and with Teens: A Call to Action” (<http://bit.ly/1n6PoKS>) have not seen widespread adoption. The 2016 report, “Connected Libraries: Surveying the Current Landscape and Charting a Path to the Future” (http://bit.ly/connectedlib_report) notes, “Connected learning demands new competencies from youth-serving librarians that graduate programs in library and information science do not always provide.” Similarly, a 2016 YALSA member survey found that only 34% of respondents had attempted to incorporate connected learning principles into their programming, and just 24% had adopted an outcomes focused approach to planning and evaluating teen services. At the same time, libraries are clamoring for support in providing CS/CT activities for/with youth. A 2017 ALA Office for Information Technology (OITP) report states that “libraries are the ideal location for youth to gain the coding experience they need,” because they are open during out-of-school time, have necessary infrastructure, and are ubiquitous (<http://bit.ly/rtcereport>). The report also indicated “in interviews and focus groups, library staff noted lack of their own knowledge and understanding of computational thinking which hindered their ability to fully engage in this area.” Further, ALA’s Google-sponsored Libraries Ready to Code Phase III project (ala.org/tools/readytocode), which will provide funds for 25-50 libraries to develop CS/CT activities for/with youth, launched in July 2017 and received 399 completed applications in 6 weeks. This proposed project will leverage this interest and demand in CS/CT activities to 1) close the gap between library interest in CS/CT and their ability to foster this learning, and 2) help more library staff build knowledge and skills around a connected learning model for teen services. This will occur via a train the trainer (TTT) approach which “is less costly than the traditional method and allows for courses to be tailored to local issues” (http://bit.ly/ttt_benefits).

PROJECT DESIGN

YALSA’s current IMLS project, Transforming Teen Services through CE (<http://bit.ly/2vJY2HX>), focuses on working with state library agency (SLA) staff to create a national continuing education (CE) agenda for library staff in teen services. Continuing that work, YALSA will join with a group of advisors knowledgeable about libraries, connected learning, youth development, CE, and CS/CT to plan, design, and implement this project. Confirmed advisors include

- Ani Martinez, Community Manager, Remake Learning
- COSLA representative, TBD
- Mark Ray, Chief Digital Officer Vancouver (WA) Public Schools and Future Ready Librarians Lead at the Alliance for Excellence in Education
- Nicky Rigg, Project Manager, Google Education and Google Lead on Libraries Ready to Code
- Mega Subramaniam, University of MD and OITP Fellow
- Marijke Visser, OITP Associate Director, and OITP lead on the Libraries Ready to Code project

Invited advisors include

- Patricia Garcia from the University of Michigan and the COMPUGIRLS project
- Talya Oberfield from Girls Who Code
- Lenny Pitt from the University of Illinois and the 4-H CS curriculum development effort
- Jasmin Zamorano from the Hispanic Heritage Foundation’s Code as a Second Language.

Advisors will work closely with the project team responsible for overall project implementation. This core team:

- Coordinator: Linda W. Braun, learning consultant
- Evaluator: Caitlin Martin, learning scientist, and evaluator of the Libraries Ready to Code project
- Curriculum Developer & TTT Facilitator: Crystle Martin, post-doc at UC Irvine, and expert in connected learning and providing CE for library staff to facilitate CS/CT activities
- Project Director: Beth Yoke, YALSA Executive Director
- Coaches: We will also identify 10 thought leaders in the areas of connected learning, community engagement, outcomes design, CS/CT, and more, and invite them to be learning coaches who support trainees, and who will work with Crystle as TTT trainers.

1. Curriculum Development: Skills covered in the curriculum will include those highlighted in YALSA’s Futures Report, and address those noted as lacking in the 2017 OITP report, including: facilitation of learning, outcomes design,

integration of youth voice, connected learning, CS/CT concepts, and community engagement strategies. In Year 1 Crystle will design a TTT curriculum and pilot it with 4 to 6 SLA staff who represent states with a range of connected learning and CS/CT CE training experience. Those involved in this pilot will provide feedback to Crystle who will refine the curriculum and launch it in Year 2 with the remaining 44 – 46 SLAs. The TTT curriculum will embed the actual training that trainees will localize for their own communities. For example, a TTT module may focus on connecting youth interests to coding. At the TTT session, trainees will learn how to facilitate that learning and reflect on how to customize the training for their specific communities, and on what makes facilitating that learning successful. In Year 3, through learnings from Years 1 and 2, Crystle will also develop materials for webinars and e-courses that will be made publicly available so learning opportunities are extended beyond the TTT group.

2. TTT Training: During Year 1 Linda will work with COSLA to identify SLA staff for the pilot, and ask SLAs to designate two people in each state to participate in 1 of 3 TTT events held in Year 2. The TTT events, facilitated by Crystle and the coaches, will be held in 3 locations and will be highly interactive with opportunities for trainees to practice ideas presented and provide feedback on the curriculum and materials to be fine-tuned for future in-state workshops. As the TTT curriculum embeds the actual training that trainees will implement in-state, there will be many opportunities to iterate the design of in-state workshops in Year 2.

3. In-State Implementation: Following the in-person TTT events, trainees will each be required to facilitate 5 CS/CT focused in-state workshops in Years 2 and 3 (1-2 each in Year 2, and the remaining in Year 3) for a total of 500 sessions reaching approximately 10,000 library staff. To provide ongoing support of trainers, we will leverage an existing YALSA communication platform, such as the Teen Programming HQ, for a project workspace where trainers can connect with each other and the coaches. Incentives for trainees to conduct the workshops will be provided, such as free registration to the YA Services Symposium.

4. Resources for the Library Community: In Year 3 YALSA will also open learning opportunities to the library community via a collection of webinars and e-courses developed by Crystle with input from advisors and trainees. In Year 3 Crystle will work with trainees, coaches, and advisors to develop a teen services guidebook focused on CS/CT activities and based on the learnings in Years 1 and 2. This online guidebook will be modeled on the successful web-based Remake Learning Playbook (<http://bit.ly/1NIWkK3>), and offer highly customizable content, how-to videos, templates, and other print-ready resources. All resources will be publicly available and housed on a special section of YALSA's web site with links to them from COSLA's site.

DIVERSITY PLAN - Through this project YALSA and COSLA will reach a diverse group of libraries and library staff. In each of the 50 states we expect workshops will be provided for staff in small, rural, urban, suburban and tribal libraries. As each state serves unique cultural populations, we will design a flexible curriculum that trainees can customize for their specific community's unique needs.

BROAD IMPACT - This project will move forward the skills and abilities of over 10,000 library staff through CE with a focus on those skills identified as most needed in the 2017 OITP Report and YALSA's Futures Report. The project enables libraries of all sizes and geographic locations to better provide CS/CT-based connected learning opportunities for/with teens, and as a result enhance civic and cultural engagement, facilitate lifelong learning, promote digital inclusion, and support the economic vitality of their communities. The evaluation will look at both the SLA trainees and the library staff who participate in the in-state workshops. Outcomes Caitlin will focus on for SLA trainees include increased confidence and competence in: 1) articulating the value of CS/CT as a part of library activities; 2) supporting library staff in implementing a connected learning model for teen services; and 3) engaging with library staff to design and implement outcomes-focused teen services. Outcomes Caitlin will focus on for in-state workshop participants include increased confidence and competences in: 1) implementing quality CS/CT activities for/with teens; 2) ability to customize materials to meet the specific needs of their local community's teens; 3) working with teens to design and implement CS/CT activities via a connected learning framework. She will measure outcomes through mixed methods such as observation, focus groups, interviews, and the analysis of artifacts of teaching and learning.

BUDGET STATEMENT - The total anticipated project cost would be \$705,000, including a 1:1 cost share rate, minus an estimated \$180,000 for student support. YALSA will request \$442,500 from IMLS to fund 1) approximately \$180,000 in student support for 3 in-person trainings (including travel and accommodations for about 115 attendees); 2) approximately \$85,000 the development and implementation of the TTT curriculum, supporting materials, guidebook, webinars and e-courses; 3) approximately \$50,000 in-state workshops support (trainee incentives, and customizable materials and curriculum); and 4) approximately \$127,500 for contracting with experts to serve as project coordinator, evaluator, coaches, curriculum developer, etc. YALSA expects to support a cost share of \$262,500, which is a 1:1 match when the \$180,000 in student support is factored out.