Digital Learning Advisory Council
Meeting Minutes
November 30, 2016

Attendees

- Doug Casey — CET
- Sarah Edson — Ethel Walker School
- Barbara Johnson — Colchester Public Schools
- Karen Kaplan — Hamden Public Schools
- Clint Kennedy — New London Public Schools
- Laura McCaffrey — Archdiocese of Hartford
- Karen Skudlarek — University of Connecticut
- Jim Spafford — Manchester Adult Education
- Scott Zak — Board of Regents

Agenda

- Open Education Resources
  - Feedback from Planning Group
  - #GoOpen Initiative
  - Conference Possibility
  - Funding

- Computer Science and Digital Literacy
  - SDE Position Statement
  - Gaps We Can (Should) Fill

- Student and Teacher Technology Proficiencies
  - Update on Student Standards
  - Draft Teacher Standards

Meeting Notes

The points below represent an assimilation of ideas rather than a verbatim or chronological record of points shared.

Open Education Resources

The meeting began with a discussion of possible initiatives around open education resources, or OER. At the last Digital Learning Advisory Committee meeting, the group agreed that assembling leaders in the OER movement from across the state would help to identify opportunities for collaboration, best practice development, training, and infrastructure needs analysis. Doug convened this meeting on October 3 and shared highlights of that discussion.

The October 3 meeting included leaders from the State Library and other local libraries, state colleges and universities, and K – 12 schools. Without reviewing in detail the meeting minutes, Doug pointed to several possible next steps that OER proponents could take:

o Go Open Initiative: The group discussed the U.S. Department of Education's Go Open initiative, which establishes standards and best practices for adopting OER plans on a district and state level. Becoming a Go Open state would allow Connecticut to tap into the experience and documented best practices of the other 19 states that have taken the Go Open pledge already. Moving forward with this initiative would require us to develop a statewide technology plan that includes OER, develop a statewide repository of OER resources, participate in communities of practice through the Go Open network, and create a Web page documenting our state's commitment to OER.

o Conference: Whether as part of an existing conference, such as the May CEN annual conference, or a standalone event, bring together OER proponents to learn from each other across a variety of topics. Sessions could address issues such as repository options and features, training for staff, standards, and funding opportunities.

o Presentation to the General Assembly: Representatives from our state libraries, colleges, and schools could ask for an audience of legislators to raise awareness of the cost, quality, and collaboration benefits, among others, of OER, in close partnership with the existing Open Textbook Task Force.

o Grant Opportunities: Kevin Corcoran and others in the group indicated that grant funding may help to launch and sustain OER efforts in the state. Doug has already partnered with Partner in Publishing, and Glastonbury-based education consultancy, to support a grant-funded OER pilot enlisting professors from Connecticut's public colleges and universities.

Clint Kennedy asked about the survey of members of higher education around OER, conducted in partnership between the Connecticut Conference of Independent Colleges and the Board of Regents. Results of that survey should be available in January 2017 and will help identify areas of activity and need around OER.

Some members questioned the relevance and benefit of OER as an initiative. Doug tied the current and potential work around OER as a direct support to other statewide priorities, including mastery-based, student-centered learning. For example, having a searchable repository of subject-specific, standards-aligned, grade-level materials might allow high schools to tap into college-level materials for their advanced students as well as for colleges to identify cost-effective, high-quality materials for remedial instruction. Jim Spafford addressed the potential benefits of this type of use, pointing to the need to bridge the gap between high school and college, the disconnect between high (87 percent) high school graduation rates in the state to relatively low college and career readiness data (50 percent across New England, according to the

Gates Foundation and the Nellie Mae Foundation). Karen Kaplan tied this to the need in our state for more K – 14 schools that allow students to graduate with associates' degrees as well as professional certifications.

Within higher education, Scott Zak indicated that librarians more than professors are driving adoption of OER, and Karen Skudlarek noted that the University of Connecticut has positioned itself as a leader in OER adoption.

In the K – 12 community, Barbara Johnson suggested that organizations such as the Connecticut Association of School Librarians (CASL), where she serves as a board member, could provide guidance and training around OER. Librarians have the skill set to provide professional development around the research and curation of materials.

Karen questioned the initiative and strongly suggested that this group and others demonstrate a need to pursue OER work. She felt it was not a high priority across most districts, and she has seen higher adoption rates among wealthier, better-resourced districts. Interest in and adoption of OER will have to come from the district level, given the decentralized nature of public education in our state and others. Karen noted that the effort to curate OER materials may not justify the cost savings, versus paying for a commercial product that, with little or no effort, provides educators with content and assessments tailored to the mastery levels and learning styles of individual students.

Jim Spafford supported the idea of an OER endorsement and the provision of resources through a shared repository. He underscored the importance of enlisting the "change agents" around this work, such as those already engaged in OER at the October 3 meeting, and pointed to the low staffing levels to support such work at the State Department of Education (SDE), with just three consultants for adult education statewide.

Doug closed the conversation by expressing thanks for the thoughtful dialog and the suggestion that putting in place OER resources, such as a repository and best practice resources, would help to stimulate momentum behind this movement, which could only help other, strategic work such as mastery-based, digital learning; increasing access to high-quality materials; and reducing the financial burden on K – 12 districts and college students of purchasing commercial materials.

Computer Science and Digital Literacy

Doug shared the Position Statement on Computer Science Education, recently published by the SDE and stemming from work by the Computer Science Advisory Group of the SDE. The document, sent to the State Board of Education, provides recommendations for the SDE, school districts, institutions of higher education, and the broader community. The paper calls for increased access to computer science (CS) education for all students in Connecticut and the possible creation of a single framework for CS in the state, among other next steps.

According to Code.org, the CS advocacy group, serious equity issues exist around access to high-quality CS education by district, gender, race, and ethnicity. For example, the group points to data from the College Board, which administers the Advanced Placement (AP) exam, showing that 939 high school students in Connecticut took the AP Computer Science exam in 2016, of which only 23% were female, 76 were Hispanic or Latino, 31 were Black, and none were Native American, Alaska Native, Native Hawaiian, or Pacific Islander. Doug sits on the Computer Science Advisory Group and shared that the members have endeavored to gather CS access data across the state's schools with limited results. They are now looking to collect data through state reports on course information (the Teacher – Course – Schedule, or TCS, report), though this only reflects high school course information, some of which is not coded correctly.

Karen Kaplan raised the importance of teaching CS but pointed out that much CS instruction takes place within the context of mathematics and science courses, which would not show up in the TCS counts. Similar concerns arose during the November 28 meeting of the Practices Advisory Council.

The group addressed nuances and confusion among terms. For example, many people equate CS with "coding," though CS includes many different elements, from computer hardware and microchip design to networking, security, and analytics. Clint Kennedy questioned whether assessments such as the AP CS exam are too restrictive, forcing students to learn a single language (in that case, Java) versus general programming, He acknowledged that mastering one language provided the learner with a framework for understanding other languages, even if syntaxes differ.

Barbara Johnson pointed to the progression of skills development from elementary to middle and high school grades, with even the youngest learners able to engage in simple computational thinking exercises through programs such as Code.org's Hour of Code. Clint suggested that one way to bolster CS education could be the adoption or creation of an endorsement that students receive as part of their high school diploma. He drew upon the world languages "bi-literacy" endorsement that Glastonbury Public Schools awards to qualifying students, which Commissioner Wentzell mentioned at the recent CABE – CAPSS conference. A bi-literacy acknowledgement could exist between core studies and CS.

Barbara identified a possible model in the Digital Promise Educator Micro-Credential program. This set of badges acknowledges mastery of specific skills and disciplines. Doug mentioned that Digital Promise has also led many public-private efforts to connect schools and education technology companies. He also pointed out that major technology companies such as Microsoft are exploring the development of micro-credentials in addition to more traditional, longer-form, more exhaustive assessments and certifications. Organizations such as Digital Promise could assist with the development of Connecticut-specific or national CS credentials, or we could develop them ourselves through platforms such as Credly or the MacArthur Foundation's badging platform.

Scott Zak pointed to the continuum of digital and computer-related skills and suggested the pursuit of funds to support general digital literacy as part of, or a gateway into, advanced CS instruction. Doug mentioned that there is significant funding through the NSF for CS programs.

The group agreed to pursue possible funding opportunities as well as the development of credentials, in partnership with other institutions and organizations such as the SDE and the Connecticut Computer Science Teachers Association.