

Annual Report of the Connecticut Commission for Educational Technology

Calendar Year 2023

Submitted in Accordance with CGS § 61a, Sec. 4d-80(c)(8)

Hartford, Connecticut January 30, 2024



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2023 Year in Review

Transition, expansion, and innovation may best describe the work of the Commission in 2023. The <u>summary of activities on page 12</u> of this report reflects the substantial body of work and impact from the <u>2017 – 22 State Educational Technology Goals and Plan</u>. That five-year period saw an expansion of learning opportunities made possible through the use of technology, not in small part through unprecedented investments in digital tools and learning approaches during the COVID-19 pandemic and shift to online instruction. During that time, the Commission launched an open education resources portal, to lower the cost of accessing high-quality learning materials and barriers to educational opportunities. Ongoing efforts support the use of innovative educational technology tools while ensuring student data privacy. And throughout this work, the Commission has developed policies and programs that help students leverage technology to enable deep, personalized learning.

This concept of equity expanded greatly in 2023, with the Commission leading Connecticut's Digital Equity Program. Through intensive outreach, research, and engagement, the newly expanded Commission team collected insights to design a five-year Digital Equity Plan, "Connecticut: Everyone Connected." The goals in that plan, likely to received funding in late 2024, promise to fulfill the vision in Connecticut statute that, "all individuals and communities have the information technology capacity needed for participation in society, democracy, and the economy of the state" (CGS § 289).

In addition to this plan that ensures access to affordable technology and the skills to use it, the Commission and its Advisory Council members developed a new state Educational Technology Goals and Plan. This overarching roadmap for digital learning reflects the intentional outreach to and input from Commission partners and appointing agencies. In this way, the plan aligns with emerging trends and technologies such as artificial intelligence (AI) as well as shared goals for educational opportunity, workforce development, health and wellness, and civic engagement.

The combined set of activities and outcomes in 2023, combined with ambitious goals for 2024 and the next five years, positions the Commission well in fulfilling its role of ensuring that technology remains a positive force in ensuring opportunities to learn for all Connecticut residents.



2023 Impact

11,000+ Visitors

The Commission's open education resources site, <u>GoOpenCT.org</u>, enabled more than 11,000 visitors to access free, high-quality digital learning materials.

→ See Open Education Resources, page 14

471 Materials

In 2023, <u>www.GoOpenCT.org</u> provided the platform for the CSDE to create and publish 471 courses, units, and other learning materials to provide statewide curriculum for all schools.

→ See Open Education Resources, page 14

1M Residents

The draft Digital Equity Plan estimates that 27% of Connecticut residents do not meet the Digital Connection Benchmark. The Plan aims to provide everyone in Connecticut with the resources to find and acquire the connections they need.

→ See State Digital Equity Plan, page 16

1.3M Residents

"Connecticut: Everyone Connected," the draft Digital Equity Plan, addresses the needs of ~1.3M (36%) residents who do not possess the skills to meet Connecticut's Digital Literacy Benchmark.

→ See <u>State Digital Equity Plan</u>, page 16

2.1M Residents

Another 2.1M residents do not have the privacy and cybersecurity skills needed to meet the Digital Privacy Benchmark that the Digital Equity Plan will address.

→ See <u>State Digital Equity Plan</u>, page 16



7,000 Residents

The Commission heard from more than 7,000 people statewide to understand the barriers they experience in adopting, affording, and using digital tools so they can effectively engage in today's society.

→ See State Digital Equity Plan, page 17

\$6M⁺ Cost Avoidance

Since its 2017 launch, the Commission's Educational Software Hub has saved districts an estimated 50,000 hours in staff time — in addition to legal fees — to comply with Connecticut's data privacy law. The Hub helps schools leverage innovative technology solutions and comply with state statute.

→ See <u>Technology Management</u>, page 19

\$40M⁺ Savings

The Connecticut State Library continues to deliver exceptional value through researchIT, the digital library free to all Connecticut residents. This service delivered \$42M in digital content subscriptions at a cost to the state of \$1.5M.

→ See <u>researchIT CT</u>, page 25

\$30M Cost Avoidance

CEN delivers Internet connections, federally mandated content filtering, and cyber protection services to schools, colleges, libraries, towns, and open access members at a cost that saved these institutions more than \$30M this year alone.



Background

The Connecticut Commission for Educational Technology ("the Commission") was established in 2000 by Public Act 00-187 to serve as the State's principal educational technology policy advisor. This document summarizes the Commission's progress in attaining its statewide technology goals during the past calendar year, in accordance with its governing statute (CGS § 4d-80). The report serves to inform and provide recommendations to the joint standing committee of the General Assembly having cognizance of matters relating to education, appropriations, and the budgets of state agencies; the State Board of Education; and the Board of Governors of Higher Education. Readers accessing this report online may use the embedded links to view minutes, watch recorded meetings, and review publications.

Membership

Name and Position	Representing or Appointed By
Mark Raymond, CIO, Commission Chair	Department of Administrative Services
Michael Mundrane, UCONN Vice Provost and CIO, Commission Vice-Chair	University of Connecticut
Douglas Casey, Executive Director	Commission for Educational Technology
Colleen Bailie, Director, West Haven Public Library	CT Library Association
Nick Caruso, Senior Staff Associate	CT Association of Boards of Education
Burt Cohen, Staff Attorney, State Broadband Policy and Program Coordinator	Office of Consumer Counsel
Charles Dumais, Executive Director, Cooperative Educational Services	Office of the Governor
Tom Dillon	Minority Leader of the House
John Elsesser, Town Manager, Town of Coventry	CT Council of Small Towns
Tony Salvatore, Co-President, Connecticut Federation of School Administrators	Speaker of the House
Ajit Gopalakrishnan, Chief Performance Officer	CT State Department of Education
Michelle Wyskiel, Fourth Grade Teacher, West Haven Public Schools	American Federation of Teachers – Connecticut
Barbara Johnson, Library Media Specialist, Colchester Public Schools	CT Educators Computer Association
[VACANT]	President Pro Tem of the Senate
Maura Provencher, Vice President of Research and Administration	CT Conference of Independent Colleges
Deborah Schander, State Librarian	CT State Library



Name and Position	Representing or Appointed By
Josh Smith, Superintendent, Region 15 Public Schools	CT Association of Public School Superintendents
Bart Stanco, Vice President, Gartner	Office of the Governor
Ryan Aylesworth, Town Manager, Town of Mansfield	CT Conference of Municipalities
Toni Boucher, First Selectman, Town of Wilton	Minority Leader of the Senate
Chinma Uche, Math and Computer Science Teacher, CREC Academy of Aerospace and Engineering	Connecticut Education Association
Grace Suh, Chief of Staff, Office of Workforce Strategy	Department of Economic and Community Development
Holly Williams, Section Director, Education and Workforce Development	Office of Policy and Management
Scott Zak, Senior Director of Learning Technologies	Connecticut State Colleges and Universities

In 2023, four appointments took place. On behalf of the American Federation of Teachers — Connecticut, Michelle Wyskiel, a Fourth Grade Teacher in West Haven Public Schools, assumed the role previously held by David Hayes, an Elementary Teacher in Bristol Public Schools. On behalf of the Minority Leader of the Senate, Toni Boucher, First Selectman of the Town of Wilton, filled the vacancy left by Erin Stewart, Mayor of New Britain. The Speaker of the House appointed Tony Salvatore, Co-President of the Connecticut Federation of School Administrators, to fill the vacancy left by Russell Feinmark. As of this writing, one vacancy remains, the appointment by the President Pro Tem of the Senate.

Leadership

Mark Raymond, the Chief Information Officer for the State, continues his service as Chair of the Commission. Michael Mundrane, the University of Connecticut's Chief Information Officer and Vice Provost, serves as the Commission's Vice-Chair. Douglas Casey serves as the Commission's Executive Director, with responsibility for planning and activities as described on the Web sites of the Connecticut General Assembly (Chapter 61a) and Commission (www.CT.gov/CTEdTech).

In addition to its members, the Commission benefits from the insights of Advisory Council members. Ten Commission members and alternates as well as other subject matter experts from across the state serve on these Advisory Councils, representing a broad diversity of constituents to help guide the Commission's priorities and programs. The list of Advisory Council members follows:



Digital Learning Advisory Council

- Nick Caruso (Chair)* Senior Staff Associate for Field Service, Connecticut Association of Boards of Education (CABE)
- Katie Bauer Director of Library Research Services & Collections, Trinity College
- Kevin Corcoran Executive Director of Digital Learning, Connecticut State Colleges and Universities
- Jonathan Costa Assistant Executive Director, EdAdvance
- Larry Covino Director, Bristol Adult Education
- Andy DePalma Director of Technology, EASTCONN
- Josh Elliott Director of Educational Technology, Fairfield University Graduate School of Education and Allied Professions
- Shaune Gilbert Data Manager, ReadyCT
- Barbara Johnson* Library Media Specialist, Colchester Public Schools
- Karen Kaplan Retired (former Technology Director, Hamden Public Schools)
- Dawn La Valle* Director, Division of Library Development, Connecticut State Library
- Tom Lonsdale Director of Educational Technology, Goodwin Magnet Schools
- Laura McCaffrey Director of School Support and Academic Services, Office of Catholic Schools, Hartford Archdiocese
- Greg Mcverry Professor, Southern Connecticut State University
- James Mindek Director of Technology & Operations, Connecticut Technical High School System (CTECS)
- Josh Smith* Superintendent, Region 15 Public Schools
- Karen Skudlarek IT Accessibility Coordinator, University of Connecticut
- Jim Spafford Coordinator of Business Services and Partnerships, Manchester Adult Education
- Chinma Uche* Computer Science Teacher, CREC Academy of Aerospace and Engineering
- Scott Zak* Senior Director of Learning Technologies, CT State Colleges and Universities

Infrastructure Advisory Council

- Tom Dillon (Chair)*
- Colleen Bailie* Library Director, West Haven Public Library
- Joe Campbell Educational Technology Consultant, CTECS
- George Claffey CIO, Central Connecticut State University
- Burt Cohen* Staff Attorney and State Broadband Policy and Program Coordinator, Office of Consumer Counsel
- Kerri Kearney Supervisor of Instructional Technology, Manchester Public Schools
- Ryan Kocsondy Director, Connecticut Education Network (CEN)
- Michael Mundrane* Vice Provost and CIO, University of Connecticut
- Sam Nanayakkara Campus Technology Administrative Lead, CT State Community College - Tunxis
- Sabina Sitaru Associate Director Innovation Product Manager, Pratt & Whitney
- Rick Widlansky System Manager, Libraries Online (LION)

^{*}Also serves as a Commission member or alternate.



Meetings

Dates and topics of Commission and Advisory Council meetings appear below, with minutes and materials available from the Commission Web site, www.CT.gov/EdTech.

Commission Meetings

Commission Meetings	
Monday, March 6	
2022 Annual Report	State Digital Equity Planning
E-rate Funding	 Commission Strategic Plan
Meeting Minutes	
Monday, June 12	
Digital Equity Research	Draft Strategic Plan
 State Technology Survey 	
Meeting Minutes	□ <u>Video Archive</u>
Monday, September 11	
School Cybersecurity Resources	Affordable Connectivity Fund
Strategic Initiative Prioritization	
Meeting Minutes	□ <u>Video Archive</u>
Manday Dacambar 4	
Monday, December 4	
Approval of Strategic Plan	 Draft Digital Equity Plan
Digital Equity Public Comment	
	D. Video Archive
Meeting Minutes	□ <u>Video Archive</u>



Advisory Council Meetings

Digital Learning Advisory Council

Monday, January 30

- Topics for Commission Strategic Plan
- Artificial Intelligence in Learning

Meeting Minutes

Friday, April 28

- Draft Commission Strategic Plan
- Meeting Minutes

Infrastructure Advisory Council

Thursday, February 2

- Topics for Commission Strategic Plan
- Digital Equity

Community Wireless

Meeting Minutes

Monday, May 8

- Draft Commission Strategic Plan
- Meeting Minutes

Joint Council Meeting

Thursday, November 2

- Final Review of Commission Strategic Plan
- Federal Digital Equity Funding

Meeting Minutes





State Educational Technology Goals and Plan

The 2023 calendar year was one of transition, as the Commission completed work in its <u>2017</u> <u>- 2023 strategic plan</u> and prioritized work for the next plan. The Commission's Vision Statement will continue to guide the next plan:

THAT EVERY LEARNER AND EDUCATOR IN CONNECTICUT BENEFITS FROM THE FULL POTENTIAL OF TECHNOLOGY TO SUPPORT PERSONALIZED AND IMPACTFUL TEACHING, LEARNING, RESEARCH, AND ADVANCEMENT.

To support that vision, the following Mission Statement defines the strategies and activities of the Commission:

DESIGN, STEWARD, AND PROMOTE POLICY, PROGRAMS, INSIGHTS, AND RESOURCES THAT SUPPORT THE EFFECTIVE USE OF TECHNOLOGY FOR ALL LEARNERS AND EDUCATIONAL ORGANIZATIONS IN CONNECTICUT.

In the past year, the Commission has stewarded, promoted, and enlisted assistance to deliver upon the initiatives defined in the Goals and Plan. That blueprint for educational technology in our state addresses eight broad initiatives falling under three focus areas: Digital Learning, Infrastructure, and Data and Privacy.

Digital Learning

Open Education Resources Student-Centered Learning Technology Proficiency Standards

Infrastructure

Digital Equity
Educational Technology Standards and Best Practices
E-rate Maximization

Data and Privacy

Privacy Best Practices Privacy Compliance



At all quarterly meetings, Director Casey provides members with an update on progress made against the Goals and Plan, reflecting the insights and efforts of the Commission members, Advisory Council members, and other subject-matter experts enlisted to support this work. The following page provides a high-level summary of these efforts.



2017 – 2023 State Educational Technology Goals and Plan Summary

Objective Objective	Status
Digital Learning	
Open Education Resources	
Obtain GoOpen Status	Completed (June 2017)
Launch OER Resource Page	Completed (May 2019)
Launch State OER Portal (GoOpenCT.org)	Completed (July 2021)
"Frontiers in Personalized Learning" Report	Completed (November 2017)
Student, Teacher, and Administrator Standards	
Commission Endorsement of Student Standards	Completed (September 2016)
Commission Endorsement of Teacher Standards	Completed (September 2017)
	· · · ·
State Board Adoption of Student Standards	Completed (June 2018)
Commission Endorsement of Administrator Standards	Completed (December 2018)
Curation of Educator and Leader Supports	In Progress and Ongoing
Infrastructure	
E-rate Maximization	
Statewide Survey Design and Feedback	Completed (July 2018)
Statewide E-rate Report	Completed (April 2019)
Digital Fauity	
Digital Equity	Completed (December 2018)
Digital Equity Toolkit	Completed (December 2018)
Draft State Digital Equity Plan	Completed (December 2023)
Data and Drivagy	
Data and Privacy Educational Software Hub Design and Launch	Completed (August 2017)
Promotion of Privacy and Security Best Practices	In Progress and Ongoing



2024 – 2028 State Educational Technology Planning Process and Initiatives

Many initiatives in the 2017 – 22 strategic plan remain relevant to teaching and learning. With achievement gaps exacerbated during the COVID-19 pandemic, technology now more than ever has become a key lever in reducing inequities in learning opportunities. And emerging areas such as artificial intelligence (AI) pose potential threats and serve as powerful tools to support education. This 2024 – 28 plan reflects the best thinking of the Commission and Advisory Council members and reflects the priorities of their appointing organizations.

The strategic planning process began in 2021, with a statewide survey designed to identify the promising educational technology tools and practices adopted during the pandemic. Advisory Council members assessed the results of this study and made further recommendations to the Commission. In June 2022, the Commission adopted <u>a resolution</u> setting priorities in the following areas: leadership, the essential conditions for digital learning, equity of technology access, and support for educators.

With these priorities in place, Commission members enlisted input from members of their appointing agencies and organizations on the next State Educational Technology Plan. The resulting <u>report</u> identified the following priority areas:

- Data Privacy: Protection of student and school data
- Digital Equity: Access to broadband, devices, training, and support
- Digital Literacy: Effective use of technology, especially social media
- Online Learning: Use of digital tools for remote and hybrid learning
- Open Education: Access to free, high-quality courses and materials
- Sustainability: Post-pandemic support of devices and software
- Use of Artificial Intelligence: In instruction and decision-making

In late summer 2023, more than 20 Advisory Council members attended a planning retreat to define the goals and intended outcomes of work to support the above priority areas. The Commission reviewed these suggestions and provided input on which initiatives from the previous strategic plan should continue. This assessment of ongoing and new initiatives would help balance limited Commission resources to invest in executing the new plan.

The 2024 – 28 strategic plan maps these initiatives under five categories:

- 1) Technology-Enabled Learning: The tools and processes to accelerate, scale, and personalize learning
- 2) Digital Equity: Affordable devices, connections, training, support, and services to provide learning and advancement opportunities
- 3) Competencies: The skills and mindsets that students, educators, and leaders need to use technology effectively in education
- 4) Sustainability: The programs and policies necessary to ensure that institutions can address the technology-related costs of education



5) Data Privacy and Security: The infrastructure, tools, and behaviors necessary to protect against the misuse of personal and educational data and information Future annual reports of the Commission will highlight progress in support of the above initiatives. The following sections of this (2023) annual report provide details regarding the 2017 – 2023 Strategic Plan.

Digital Learning

Digital Learning Standards

The Commission has led efforts to define competency standards for students in the use of technology. Work in this area includes the adoption of student (2016), teacher (2017), and education leader standards (2018). While basic connectivity and device access remain essential prerequisites to learning online, what allows students, teachers, and administrators to leverage the power of technology for learning are skills such as knowledge construction, information literacy, collaboration, and problem solving.

In 2023, Director Casey served on a working group of volunteers through the International Society for Technology in Education (ISTE) to update that organization's standards, which Connecticut has adopted as its frameworks. The group conducted a thorough review of the student standards and made proposed revisions to emphasize student agency and lifelong learning, equity and inclusion, and the use of artificial intelligence (AI). As of this writing, the working group had concluded its revisions, and ISTE had posted the proposed standards for public comment (see https://www.surveymonkey.com/r/B73JBT7).

In 2024, the Commission will likely address digital literacy standards that include those used in K – 12 settings as well as broader frameworks for all adult residents. These efforts fall under the draft Digital Equity Plan completed in December 2023 and scheduled for final review and submission in March 2024 (see Digital Equity for additional details).

Open Education Resources

The Commission continues to champion the use of open education resources (OER), which include free digital textbooks, courses, unit plans, lesson plans,



and instructional videos. This work supports the Commission's statutory charge of "providing access for all public schools, public libraries, and libraries at institutions of higher education to a core set of online, full-text resources" [CGS § 4d-80(c)(2)(C)].

Following the launch in 2021 of "Go Open CT" (www.GoOpenCT.org), the State's OER portal, this past year saw continued growth in the site's use and application for teaching and learning. The site has grown to more than 9,000 textbooks, courses, units of study, and lessons available for Connecticut educators. Site visitation remains strong, with more than 1,300 registered teachers and professors and 11,286 unique visitors across a total of 20,873 sessions, with 92,670 pages of content viewed.



The Commission continues to partner with the CSDE to support access to high-quality instructional materials. At the time of this writing, GoOpenCT.org provided access to 471 courses, units, and lessons created by the CSDE Academic Office. By the first quarter of 2024, the site will house all of the statutorily mandated courses developed by the CSDE, including African American/Black and Puerto Rican/Latino Studies, Computer Science, English – Language Arts, Math, Personal Finance, and Science.

Infrastructure

Digital Equity Plan

Much of the Commission's efforts in 2023 went into the development of "Connecticut: Everyone Connected," the State Digital Equity Plan. With funding through the Bipartisan Infrastructure Law (BIL), the federal Digital Equity Act Program will allow Connecticut and other states to help residents get online and develop digital literacy skills. Development of the digital equity plan also supports the Commission's statutory charge to help close the digital divide (see CGS § 61a, Sec. 4d-80).

Background

The U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) oversees the Digital Equity Program, which includes planning, capacity, and competitive grants. All support the provision of affordable, high-speed broadband and devices as well as support for residents to acquire the skills they need to engage in today's digital society. In November 2022, the NTIA approved the Commission's planning application, awarding the Commission \$736,568 to develop the five-year state digital equity plan, with these elements:

- Purpose: To ensure all residents can engage in today's digital world for learning, civic engagement, telehealth, remote work, career advancement, tapping State services, and deepening social connections
- Covered Populations: A focus on the needs of priority groups that include lowincome households, aging populations, incarcerated individuals, veterans, people with disabilities, people with language barriers, racial and ethnic minorities, and rural residents
- Barriers: Assessment and design of programs that address the financial, logistical, and other barriers to technology access, adoption, and use
- Assets: Inventory of existing programs that address the above barriers, including broadband adoption, affordable devices, training, and support
- State Plans: Alignment with strategic state plans that address economic and workforce development, education, health, civic and social engagement, and the delivery of essential services





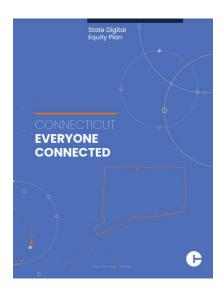
Team

After an extensive recruitment and application process, the Commission welcomed Lauren Thompson as its Digital Equity Program Manager. She is responsible for administering the Digital Equity Program on a daily basis and brings her extensive outreach and planning experience as a program leader within the library community.

Shortly after the hiring of Ms. Thompson, the Commission brought onboard Sarah Ullom-Minnich, a Governor's Fellow. A recent graduate of Yale's Jackson School of Public Policy, Ms. Ullom-Minnich benefitted the program through her expertise in program design and analytics, coupled with her experience in serving Connecticut agencies and organizations as well as in Kosovo through the Peace Corps.

Research

The "digital equity team" of Thompson, Ullom-Minnich, and Casey (approximately half time as an in-kind contribution to the federal program) conducted research to assess the levels of technology access and skills among residents of Connecticut. This work included the administration of a survey designed in partnership with the University of Connecticut School of Public Policy and completed by more than 7,000 people in the state. Focus groups to collect input from members of covered populations (see definitions above) provided qualitative input to identify barriers to technology access. Following introductions by Department of Administrative Services (DAS) Commissioner Michelle Gilman, the Commission also engaged with more than 20 agency leaders to understand how the use of technology supports their mission of serving the people of Connecticut.



This work led to the design of statewide benchmarks — and statewide estimates of residents meeting them — that reflect levels of technology access and skills (see <u>draft plan, page 8</u>):

- Digital Connection Benchmark (73%): Residents have a wired home Internet connection, computer, and smart phone with a data plan
- Digital Literacy Benchmark (64%): Residents indicate they could complete at least five of six basic tasks using a computer or smart phone.
- Digital Security Benchmark (41%): Residents are very or fairly familiar with key security concepts.

The estimates above, for all residents, are lower for other subgroups, especially those living with one or more disabilities, those living at or below 150% of the poverty line, and those with a language barrier (e.g., lack of English proficiency). Residents incarcerated in state correctional facilities, have extremely limited access to technology. Those who have recently left state prisons self-report their lack of digital literacy and privacy skills, essential to critical re-entry endeavors such as finding a job and housing.



Goals

To address the needs identified through this research, the Digital Equity Plan includes six goals:

- 1) Promote Development of Digital Skills and Technical Support Programs
- 2) Increase Public Awareness of Digital Equity Resources
- 3) Ensure Residents Have Affordable Options for Getting Online that Meet Their Needs
- 4) Support Development of Accessible and Inclusive Digital Government at the State and Local Levels
- 5) Support High-Speed Broadband Infrastructure Buildout
- 6) Foster Ongoing Learning About Digital Equity Best Practices

Detailed steps to accomplish these goals appear beginning on <u>page 127 of the draft plan</u>. Updates reflecting progress against these goals will appear at <u>www.CT.gov/DigitalEquity</u> and in subsequent annual reports of the Commission.



As of this writing, the Commission was collecting input on the draft Digital Equity Plan through the program's required public comment period. During this time, the digital equity team has engaged in outreach efforts to socialize, share, and collect feedback on the plan. These efforts include a January 8 press conference with Governor Lamont, Senator Blumenthal, and Representative DeLauro; an information session January 11 streamed and recorded through CT-N; and

attendance at more than a dozen other events across the state. Following public comment, the team will review and integrate suggested changes into the plan for submission to the NTIA for final review by February 13, 2024.

Plan Funding and Implementation

Completion and approval of "Connecticut: Everyone Connected" will mark the end of the Planning phase of the digital equity program. Guidance from the NTIA indicates that applications for the Capacity phase — formula-based, with funds dedicated to all fifty states and territories — will become available by spring 2024. The Commission will apply for these funds, which should total approximately \$17M, given previous formula-based awards. If these next steps take place according to the above timeline, the Commission expects to begin detailed planning and program rollout starting in late 2024.

Broadband Advocacy

In 2023, the Commission has engaged in advocacy for funding and program administration at the federal level. In February, Chair Raymond submitted <u>a detailed filing</u> to the Federal





Communications Commission (FCC) to encourage use of federal E-rate funding to support next-generation firewalls. The key argument in this correspondence is that schools, libraries, and other educational institutions need safe and secure connections to ensure continuity of service and learning. Evidence provided includes data on distributed denial of service (DDoS) attacks that the Connecticut Education Network (CEN) mitigates, protections that ensure stable and reliable networking in Connecticut. Funding should be available to all institutions nationwide to provide advanced security options through the E-rate program.

In May, Chair Raymond filed comments on behalf of the Commission regarding the design of the Digital Equity Program's "Capacity" phase. Points shared highlight the importance of ensuring measurable outcomes aligned with goals defined in the Planning phase. Comments also underscored that digital equity is not a condition that can be attained once but a process by which states, leadership organizations, and community-based groups provide the resources necessary to assist residents in accessing and using technology. The filing concludes by calling for defined, measurable standards in digital literacy, citing Connecticut's work in aligning student learning goals with the ISTE standards (www.CT.gov/ISTE).

In the fall of 2023, Chair Raymond issued a letter to the Connecticut Congressional delegation encouraging them to take steps to continue funding the Affordable Connectivity Program (ACP), begun during the pandemic. The ACP provides \$30 in for Internet access and a one-time \$100 credit toward the purchase of a computer for qualifying households. To date, an estimated 178,171 households in Connecticut have enrolled in and use the Internet service credit; approximately 25,0001 have applied for and have used the computer credit.

Other Broadband Programs

The Commission continues to work closely with other State agencies to ensure a coordinated and efficient investment of federal funding to expand access to technology for all residents. Complementary programs include the following:

- <u>CEN Connect</u>: In late 2023, CEN Director Ryan Kocsondy received final approval from the U.S. Department of the Treasury to invest \$73M in American Rescue Plan Act (ARPA) funds into a suite of programs known as "CEN Connect," as authorized by the <u>2022 – 23 Connecticut biennium budget</u>, The program includes four key initiatives:
 - Next Generation Infrastructure: Provides a comprehensive update to expand capacity, increase speeds, reduce latency, and support long-term growth in Internet use. The project will benefit the 670 currently connected CEN member institutions, which in turn connect 1.9M Connecticut citizens. It also serves as the backbone for new institutional members and an attachment point for the Community WiFi initiative (see below).

¹ FCC Universal Service Administrative Company, https://www.usac.org/about/affordable-connectivity-program/acp-enrollment-and-claims-tracker/, accessed January 29, 2024.



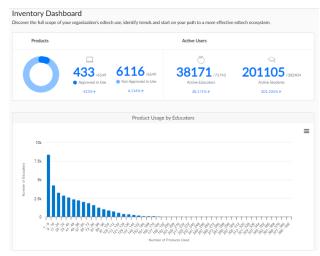
- Connecting Connecticut's Communities Initiative: Offers 97 municipalities, 6
 Council of Governments (COGs), 63 libraries, and 14 charter schools fiber-based, high-capacity CEN dedicated Internet service.
- Community Wireless (Wi-Fi): Competitive sub-grant that will expand by tenfold the 2020 community wireless components of Governor Lamont's Everybody Learns initiative. The project aims to offer connectivity options to all Connecticut residents, both urban and rural, and target underserved, typically economically disadvantaged groups and communities of color in each municipality.
- <u>Broadband Equity, Access, and Deployment (BEAD)</u>: DEEP leads this program to
 expand high-speed Internet access to under-connected and unconnected areas.
 Surplus funds not used for the expansion of broadband to under-served and
 unserved households will go toward connecting anchor institutions, a longtime
 priority for the Commission and CEN, and to support digital equity work in the state.
- Broadband Mapping: OPM leads these efforts, funded through the 2021 Broadband Bill (<u>Public Act 21-159</u>). The <u>BroadbandMaps.CT.gov</u> site provides interactive views of the state with layers that detail Internet access, affordability, and adoption.

Data and Privacy

Education Technology Management

The Commission remains committed to helping schools manage and optimize the use of digital learning tools while ensuring the privacy of personal data. One national study of nearly 3 million students indicates that the average school district uses more than 2,591 educational apps during a given year (LearnPlatform, May 2023).

In Connecticut, the Commission's statewide subscription to LearnPlatform allows any school or district to access a real-time inventory of software titles in use. By the close of 2023, 83 districts were using this free service, up from 71 in 2022. Usage data from 38,171 educators and 201,105 students shows a total of 6,116 software products in use across 83 reporting districts. The average number of products used per district was 1,640. The total educational software "footprint" is likely much larger than this total, and these numbers serve as reminders of the need to ensure the protection of student information as schools continue to leverage technology for personalized learning.





Use of this data can help decision-makers identify new software titles that support student learning as well as apps that administrators have not approved. The Inventory Dashboard can also provide insights on software that districts pay for every year but that may not see significant use. Identifying such educational technology "waste" allows leaders to consolidate their software catalog, reducing licensing and support costs.

The Commission's efforts to support district and vendor compliance with Connecticut law have garnered national and international interest. Director Casey continues to serve on the United Nations Educational, Scientific, and Cultural Organization (UNESCO) <u>Data for Learning Working Group</u>. He has presented on Connecticut's work to protect student data and information, especially in the context of emerging technologies such as AI, through this group. In September 2023, UNESCO issued its report, "The Transformative Potential of Data for Learning," which highlights the support that the Commission has provided to Connecticut schools in supporting data privacy compliance (see <u>page 82</u>). And among other speaking engagements this year, Director Casey helped organize and presented at the December 2023 AI in Education conference. He addressed the concerns that K – 12 and higher education will likely face with the advancement of data-collection and AI tools for learning.

Exemption Reporting

Local education agencies (LEAs) must report each year to the Commission on their use of software that does not strictly comply with Connecticut's student data privacy law. The exemption, defined in <u>Public Act 18-125</u>, supports the district design of individualized education plans (IEPs) and student accommodations under Section 504 of the Rehabilitation Act of 1973. Those LEAs that use the exemption must share details about each software title, its provider, and assurances that the district has made reasonable efforts to comply with all other aspects of state and federal privacy statute.

In December 2023, Director Casey shared the consolidated, five-year (2018 – 2023) reports of district exemption use through the Connecticut Open Data portal (https://data.ct.gov). Data sets and interactive charts allow visitors to view which districts used the exemption and if so, which software tools they used. More than half of LEAs (59 percent) did not report for the 2022 – 23 school year, despite the mandate to do so. Of those districts that did report, about 5 percent used the exemption, down from 7 percent in the 2021 – 22 school year.



Communications and Outreach

To raise awareness of its work and gather feedback from a diverse set of constituents, the Commission leverages several online media channels, including the Commission Web site, Twitter account, and e-mail listserv. Director Casey continues to present at state and national events, produce research and publications, submit news to educational media outlets, and participate actively in several <u>professional and advocacy groups</u>. The following sections provide highlights of these communication and outreach efforts.

Online Media

- Web: The Commission's Web site, <u>www.CT.gov/EdTech</u>, continues to support the educational community. Additions to the site this past year include digital equity program resources and data privacy updates.
- X (Formerly Twitter): The Commission's account, @CTEdTech, serves as a means of communicating important research and policy updates to 675 followers.
- Statewide Listserv: In early 2016, the Commission launched a statewide e-mail listserv to share research, best practices, and announcements with the K 12 education community. Since that time, the list has grown to include more than 475 members, including school technology leaders from nearly every Connecticut public school district and many private schools. In the past year, contributors have submitted more than 2,000 posts that include funding and legislative

Edit profile **CT Ed Tech** Commission for Educational Technology (Retweets and content from Followers does not necessarily represent the views of the Commission) Hartford, CT & ct.gov/ctedtech III Joined December 2015 32 Following 663 Followers Tweets & replies Media Likes Tweets CT Ed Tech @CTEdTech - Dec 22 Thank you, @KaraArundel, for the excellent context of current statute, the need to reframe privacy, and the path forward for schools Kara Arundel @ @KaraArun... Dec 14 Collaborations b/w K-12 school systems and #EdTech providers help keep student data secure but data privacy challenges like purging of unwanted data, misunderstood laws remain. @futureofprivacy @SETDA @SIIA k12dive.com/news/whv-stude... via @K12DiveNews

updates, best practices in digital learning approaches, and time-sensitive security alerts. Comments from district technology leaders indicate that the service provides an easy and powerful means of quickly communicating with and sharing best practices among members of the Connecticut educational technology community.



Presentations

Director Casey shared the Commission's work statewide, nationally, and internationally in 2023. The following list summarizes these presentations.

Organizer – Audience	Topic(s)	Date
Sacred Heart University	K – 12 Technology Policy and Operations	Jan 7
Council of Chief State School Officers (CCSSO)	CIO Quarterly Roundtable (Digital Equity Plan)	Jan 25
Go Open Network	How Open Educational Resources Can Support Digital Equity in Your State	Jan 26
Governor Lamont	Governor's Interagency Broadband Briefing	Feb 2
CT General Assembly Energy & Technology Committee	Informational Forum on Broadband	Feb 16
UNESCO Data for Learning Working Group	Governance, Cross-Border Data and Use Cases	Mar 22
CT Education Network	State Digital Equity Plan (Annual Conference)	May 11
CCSSO	Digital Equity: A K – 12 Perspective	May 16
AARP	<u>Digital Equity Town Hall</u>	May 16
Office of Lieutenant Governor Bysciewicz	Press Conference to Announce Resident Digital Equity Survey	Jun 20
The White House	Back to School Safely: K – 12 Cybersecurity Summit	Aug 8
CES Technology and Media Council	State Educational Technology Updates	Oct 26
SETDA	Connecticut's Digital Equity Plan	Nov 5
Connecticut Education Technology Leaders	Artificial Intelligence: Policy and Practice in K – 12 Schools	Dec 11
Interagency Council for Ending the Achievement Gap	Student Technology Access and Equity	Dec 12

In addition to these general topics, the Commission's digital equity team presented at more than 50 meetings to raise awareness of the plan and garner feedback on its contents. For details, see Section 4: Collaboration and Stakeholder Engagement, beginning on page 118 of the draft plan.



Media Coverage

Outreach campaigns and publishing opportunities promoted the work of the Commission and resulted in coverage across a number of media channels this year. The following table lists stories, interviews, and publications that highlight the Commission's efforts and impact.

Outlet – Publisher	Title	Date
Hartford Courant	Thousands in CT lack access to high-speed, affordable internet. Here's how the state's trying to change that.	Jan 3
the ct mirror	Tech advances leaving many in CT locked out of jobs and economy	Jan 8
United States Department of Education	Capitalizing on the Moment: States Collaborate with Education Leaders on Digital Equity Plans	Feb 14
government technology Solutions for state and local government.	K-12 Leaders Urge Modernizing E-Rate for Cybersecurity	Feb 23
TANAGE CABE	"Digital Equity" Defined – and Why It Matters	Mar 1
TownTimes	State Receives Grants to Expand Internet and Skills in the State	Mar 30
Education Week.	The Right Time to Think About Data Privacy? From the Very Beginning	Jun 19
Education Week.	How One State Is Managing the Continued Rise of Ed Tech in its K-12 Schools	Sep 25
BOSS	The Rise of Statewide Cybersecurity	Dec 6
CONNECTICUT BY THE NUMBERS	Public Comment Sought on Draft of Connecticut's Digital Equity Plan	Dec 26
statescoop	Connecticut digital equity plan seeking public comment	Dec 22
CII INSIDE INVESTIGATOR	Lamont pushes digital equity in new plan	Dec 22
CT INSIDER	CT ahead of most states, but digital equity plan reveals gaps in internet access, computer literacy	Dec 27



Professional and Advocacy Groups

To garner support for Commission initiatives, deepen understanding of constituent needs, and identify funding opportunities, Director Casey actively participates in the following state and national groups:

- Connecticut Association of Public School Superintendents (CAPSS) Technology Committee: Provide monthly Commission updates to state superintendents
- Council of Chief State School Officers (CCSSO) Digital Equity Steering Committee:
 Engage as part of core planning team to identify and share best practices and
 develop guidance to state leaders on ensuring equitable access to digital learning
 through broadband, devices, and skill development
- ISTE Standards Advisory: Provide input on international technology proficiency standards for students, teachers, and education leaders
- Skills21 Board: Support work of EdAdvance (one of six state Regional Education Service Centers) to provide technology-based curriculum and challenge competitions in STEM subjects
- State Educational Technology Directors Association (SETDA) Board of Directors:
 Served as 2021 22 Chairman of the Board of national affinity group that develops and advocates best practices in digital learning
- State Interagency Council for Ending the Achievement Gap: Represent the Department of Administrative Services in statewide efforts to align programs and resources that enable all learners to succeed
- United Nations Educational, Scientific, and Cultural Organization (UNESCO)
 Broadband Commission Data for Learning Working Group: Establish international guidance and standards on the effective and ethical use of data in education



Connecticut State Library

researchIT CT

As part of the Connecticut Education
Network and administered by the
Connecticut State Library (CSL), researchIT
CT (https://researchitct.org/) provides all
Connecticut students, faculty, and
residents with online access to essential



library and information resources. The researchIT CT service offers a core level of information resources, including secured access to licensed databases, and is available to every resident in Connecticut. These resources support efforts by the Division of Library Development (DLD) around the seven literacies: Digital Literacy, Health Literacy, Financial Literacy, Legal Literacy, Civic/Social Literacy, Basic Literacy, and Early Literacy. In addition, college students and faculty have access to specialized research information. The researchIT CT service also includes a collection of downloadable eAudios and eBooks (eGO CT) for access on mobile devices such as smartphones and tablets. This service is now available to academic, K – 12, and public libraries.

The CSL continues to provide easy database access to patrons in 2023. In response to the pandemic and the remote learning it presented, The DLD worked with database vendors to temporarily provide remote access to researchIT databases without requiring library card authentication. EBSCO created a list of temporary links that can be used by patrons and students who don't have a library card. This means of access remains in effect and it also serves as a backup to sites that have trouble accessing the new user interface rolled out in 2023 from EBSCO.

Additionally, The CSL utilized federal Library Services and Technology Act (LSTA) funds to extend access to EBSCO's Learning Express Workforce Solutions including Job and Career Accelerator for public libraries in CT to run from October 1, 2023 through June 30, 2025.

Goals of researchIT CT are as follows:

- Ensure universal access to a core level of library and information resources for every resident of Connecticut through their public library, school, and college and from home
- Provide necessary information resources to every school in Connecticut so that all students are prepared to function in an information society
- Provide information resources to the increasing number of students taking advantage of online courses at Connecticut's colleges and universities
- Support the information needs of all Connecticut residents



Budget

In the spring of 2019, the DLD coordinated a Request for Proposal (RFP) process for the databases that comprise researchIT CT. After three years of stable pricing, the resulting proposals included some price increases that pushed the cost to maintain all of the current offerings beyond the DLD budget. This fiscal year saw an increase in the budget for the Connecticut Digital Library to accommodate cost increases and inflation. The current agreement with EBSCO and ProQuest keeps the subscription in effect until June 30, 2025.

Annual Savings / Cost Avoidance (FY 2022)

The value of all researchIT CT databases to local communities exceeds \$42 million in one year, while the cost to provide those databases is \$1.3 million. This represents a cost avoidance of nearly \$41 million. For more details, see the following publication:

Cost Benefit: What researchIT CT Saves the State's Libraries and Municipalities

Usage (FY 2022)

For researchIT CT's licensed full-text databases, there were a total of 2,616,339 page views (a measure of when search results are viewed), with 173,419 or 7% from public library patrons; 580,535 or 22% from school library patrons; and 1,862,535 or 71% from academic library patrons. In addition, public libraries viewed CLS collections in Ancestry.com 11,248,305 times in FY 2023.

findIT CT

findIT CT, Connecticut's statewide library catalog, contains the holdings of 333 libraries in Connecticut, with more libraries being added on an ongoing basis. As of January 1, 2024, findIT CT contained more than 25 million records and 19 million items. In FY2023 it had more than 700,000 visits and 4.9 million page views.







requestIT CT

requestIT CT, the statewide interlibrary loan service in findIT CT, began in September 2017, and as of July 2023, 133 libraries in Connecticut participated in the service. Librarians can easily place requests on behalf of patrons, update requests, and track the status of requests as they make their way through the interlibrary



loan process. Participating libraries filled 13,541 interlibrary loan requests during FY2023 using the fulfilLment system.

Digital Collections

The Treasures of Connecticut Libraries digital collection, which began in 2008, remains available and had 9,559 item views in FY2023. It contains 1,869 objects from 51 libraries and their partnering institutions. No new content is being added to this collection. The Treasures collection can be accessed at:

https://cslib.contentdm.oclc.org/digital/collection/p128501coll0

The CT State Library added the first issues of the Newspapers of Connecticut digital collection in 2011 to its ContentDM platform. This collection is available now through the Connecticut Digital Archive (CTDA, https://ctdigitalarchive.org) for preservation and access. During FY2023 the collection had 32,128 item views. The CLS added two additional newspapers to the CTDA, bringing the new total in the CTDA to 119 newspapers. In September 2018 the CTDA became a service hub for the Digital Public Library of America (https://dp.la/), so the newspapers are also discoverable through the DPLA. The Newspapers of CT collection can be accessed at:

http://hdl.handle.net/11134/30002:newspapers.

eGO and the Palace Project App

eGO CT is a project through which the CSL acquires digital content such as eBooks and eAudio and making it available to users statewide primarily through an app. Library users can download the app and use it to easily discover, check out, and read or listen to digital content, such as eBooks and eAudio. The app is designed to display content that is available in the statewide CLS collection as well as content from local library collections.



Launched to the public in March 2022, The Palace Project App makes it possible for Connecticut public library users to access eBook titles from their individual public library, from a parent regional library system, from the Palace Open Bookshelf, Palace Marketplace, and Axis 360 collection, all in one intuitive, easy-to-use mobile app for iOS or Android. As of December 2023, there are 142 public libraries and 18 academic sites that are live in the app and sharing it with their patrons. The service includes downloadable audiobooks as well as eBooks.

The eGO Community Share program was launched in 2022. This project is aimed at K-12 schools as part of the eGO CT program. The goal is to allow for easier access for students to the CSL eBook collection. The project is being accomplished with LSTA funds in partnership with Baker and Taylor. As of December 2023, there are 131 school sites participating.

Content

As of December 2023, the eAudio and eBook collection includes the following:

- Baker & Taylor Axis 360: 4,884 items
- Palace Marketplace & Biblioboard: 5,841 items
- Palace Open Bookshelf: 20,175 eBooks

Usage (FY 2022)

Because the digital collections are available through a self-service model, CSL staff have no role in the circulation process and are responsible only for collection development and licensing. Usage statistics show that there was a total of 12,557 checkouts as part of the eGO CT program, and 7,767 were from the CSL collection.