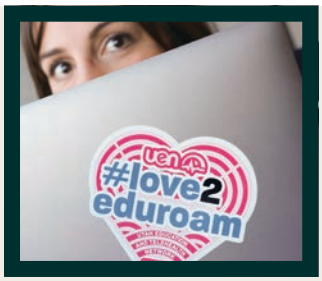
Utah Education and Telehealth Network

LOCAL CONTENT AND SERVICE REPORT TO THE COMMUNITY FOR 2019



UEN-TV | TV for Thinkers: education programs for lifelong learners of all ages on channel 9.1

FNX | Native American and Indigenous entertainment and news on channel 9.3

NHK World-Japan | English-language news and culture programming from Japan on channel 9.4

Credit: Golden Spike National Historic Park

The Spike 150 Celebration included a re-enactment of the completion of the transcontinental railroad in Promontory, Utah on May 10.

Friends,

In 2019 our state marked 150 years since the nation was connected through the transcontinental railroad—right here in Utah. Then, as now, many people from diverse communities, interests and backgrounds joined to celebrate this new technology with an optimistic eye toward the future.

Today, we continue this rich legacy of technology, ingenuity and hard work. Through our robust broadcast and broadband network, tools, resources, people, programs and experiences we strive every day to enrich the lives of all Utahns.

On behalf of our Governing Board, advisors and employees, I am pleased to share our accomplishments in this *Local Content and Service Report to the Community.* As we celebrate the past through the stories and data presented here, we also look forward to new content and innovative services benefiting our community long into the future.

Thank you for your continued interest and support.

Sincerely,

Laura Hunter

Chief Operating Officer, UETN
Station Manager, KUEN

Utah Education and Telehealth Network

UEN-TV FOR THINKERS

We produce and broadcast quality educational content.

The UEN production "The Making of *As One*" reveals the story behind a musical that recognizes contributions made by diverse people to the railroad that would change the world.

Uniting a Nation

Spike 150, Utah's celebration of the 150-year anniversary of the completion of the transcontinental railroad, engaged more than 20,000 participants in events across the state. As a Spike 150 partner, UEN aired the keynote event held on May 10 at Promontory Summit, including the world premiere of As One. UEN curated educational materials and created an instructional video on using augmented reality to teach the history of the transcontinental railroad.

Producer Nicole Reynolds checks light levels on location for a story about Boreal Toads.

ORIGINAL PRODUCTIONS 2019

American Graduate: Advanced Composites

American Graduate: Mentoring Women in Trades

American Graduate: Supercharged Opportunity

American Graduate: CTE in Rural Utah

UtahFutures: Hot Jobs

Art Connection: Life on Ice

Art Connection: Of Peace and Light

Art Connection: The Making of “As One”

Art Connection: Ummah

PDTV: 10 Years of the Canyons Film Festival

PDTV: EdTech in Rural Utah

PDTV: Growth Mindset at the Winter Sports School

PDTV: ISTE Certification

PDTV: Leading Schools Summit

PDTV: Quick and Easy Video with Adobe Rush

PDTV: Sizzle Reel for APT

PDTV: Social and Emotional Learning with Ben Springer

PDTV: Student-Led Maker Space

PDTV: Teacher-Created Virtual Field Trips

PDTV: Tech and Distractions

PDTV: Tech Garage

PDTV: Transform Faculty Meetings with Canvas

PDTV: UCET 2019 Recap

PDTV: Utilizing Google Tools

PDTV: Wasatch Back conference

SciTech Now: Deep Brain Stimulation

SciTech Now: Research Quests

SciTech Now: SafeUT app

Spike150: Instructional AR video

UETN: JIRA Service Desk training

ULEAD training videos

uen.org/tv

UEN PDTV Series

The on-demand professional development program for teachers presents best practices in Utah schools. Sixteen new episodes were produced in 2019.

UEN Homeroom Podcast

Featuring educators and leaders from across the state, this bi-monthly podcast explores innovation in education and technology.

American Graduate: Getting to Work

In addition to distributing partner content, UEN produced collaborative videos addressing Utah’s career education needs.

Art Connection

UEN segments bring Utah stories to a national audience as part of a weekly program on fascinating artists and projects.

SciTech Now

Capturing breakthroughs in science and technology, this national program includes UEN-produced segments featuring Utah innovations.

Production Assistant Cassandra Taylor sets up for a field shoot. UEN’s Media Services team traveled to every region of Utah to capture stories.

ENGAGEMENT

We extend programs and projects to benefit our community.

Helping Learners Succeed in School and Career

UEN's UtahFutures American Graduate project connected thousands of youth and the people who guide them with Utah's career and technical education resources. Working with nearly twenty partners, UEN produced content and facilitated community engagement to strengthen communications around high-wage, in-demand careers and pathways that do not require a college degree. The project launched in 2018 and is part of the national public media initiative, American Graduate: Getting to Work, made possible by the Corporation for Public Broadcasting.

8,000+	4+ million
STUDENTS, PARENTS AND EDUCATORS ENGAGED	UTAHNS REACHED

20 new videos	300+ hours
ON UTAH CAREER RESOURCES	OF CAREER EDUCATION CONTENT ON UEN-TV

UEN's Jenn Gibbs welcomes students, parents and caregivers to an American Graduate College Knowledge Night. The Utah College Advising Corps and UEN partnered to introduce more than 1,100 students and caregivers to UtahFutures, career and technical education (CTE), and other college access resources.

2019 UEN American Indian Film Festival

Featuring documentaries such as *Warrior Women, Healing the Warrior's Heart* and *True Whispers*, the festival extended broadcast content with community events held in partnership with higher education institutions and the Utah Division of Indian Affairs.

UEN's Lisa Cohne introduces a film at the 2019 American Indian Film Festival. Locations included Weber State University, Utah Valley University, and the Utah State University Blanding Pow Wow.

Airing on UEN-TV channel 9.3, FNX delivers news and cultural programs. by and about indigenous people.

Children crowd to play UEN's game at the Nihon Matsuri Japan Festival.

NHK World-Japan

UEN extends programming through community events such as the Nihon Matsuri Japan Festival. More than 500 community members engaged with UEN at the 2019 event in Salt Lake City.

Airing on UEN-TV channel 9.4, NHK World-Japan brings the latest news from Japan and Asia to Utah.

INFRASTRUCTURE

We administer a secure, advanced and stable network.

Connecting Every Learner in the State

Broadcasting to communities throughout the state via an extensive system of translators and connecting over 1,700 end points, the UETN-managed network provides critical infrastructure to rural and urban areas. In 2019, the network upgraded 25 sites to higher capacity internet circuits and increased broadband service to 652,348 K-12 students at 1,113 schools.

GROWTH IN UETN NETWORK USE (GBPS)

Easing Internet Access

Eduroam gives students, researchers, faculty and staff secure internet access when visiting other participating institutions. Sites include school districts, regional educational service centers, technical colleges, public libraries, government agencies and Utah Transit Authority trains. UEN helps provide the service and network access.

Network Operations Engineer Amanda Burns troubleshoots network usage across Utah.

Progress in Broadcast Spectrum Repack

UETN continued to convert 500+ television signal translators. The project is in collaboration with public and commercial stations that were reassigned spectrum through the FCC repack. UEN's extensive system of translators reaches all 29 counties in Utah.

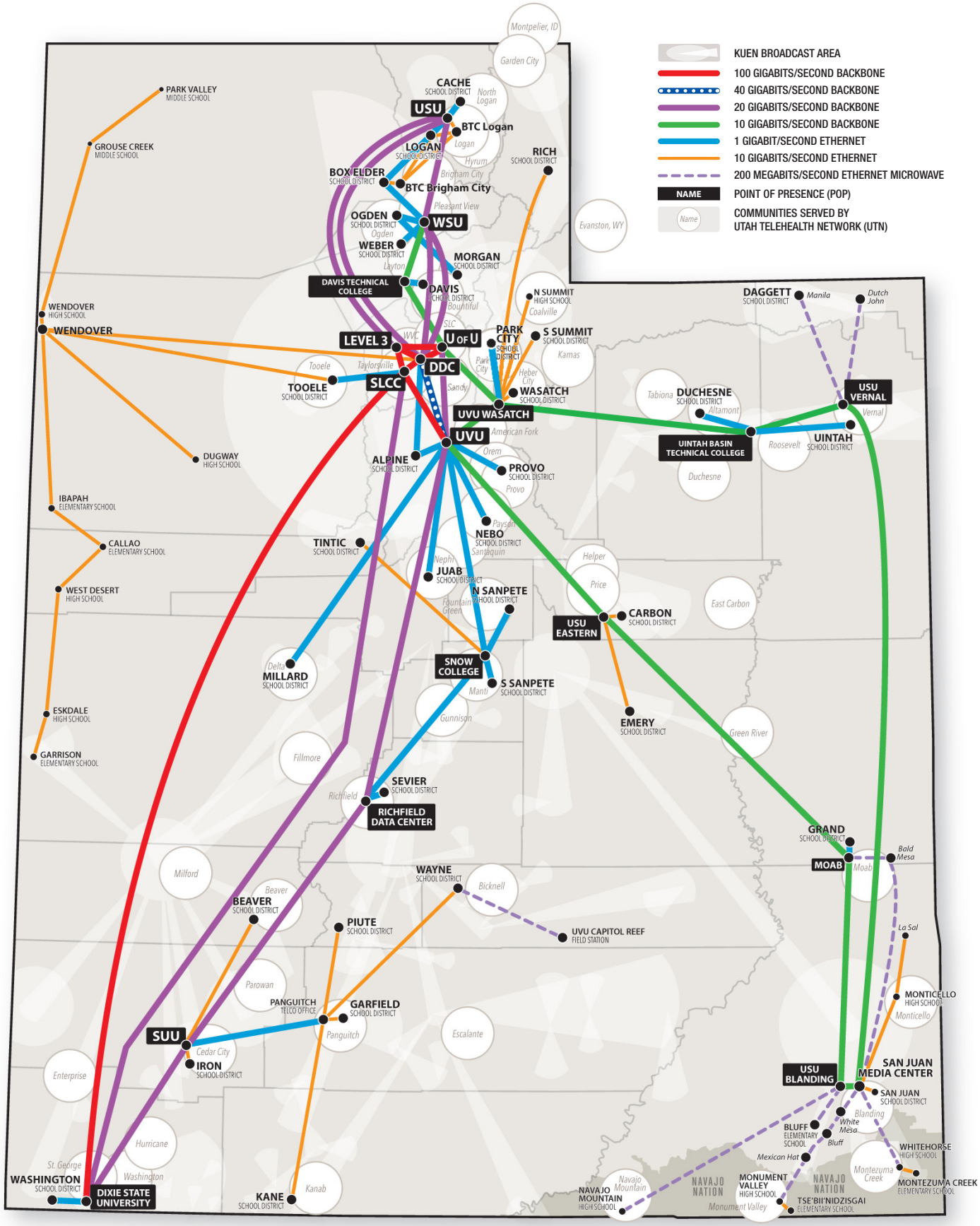
24/7 Network Operations Center

Network monitoring and security has received a boost with the addition of 24/7 on-site staff for the Network Operations Center.

Updating Connections

To increase network capacity and reliability, UETN improved bandwidth and replaced outdated equipment at the college and university campuses through which other stakeholders, including K-12 public schools, are connected.

31	34
SPONSORED EDUROAM SITES	ADDITIONAL SITES ENTERED PLANNING PHASE IN 2019



Our infrastructure blankets the state. Notable upgrades in 2019 improved connectivity for rural San Juan and Daggett Counties.

EDUCATION

We curate and support high quality resources and tools.

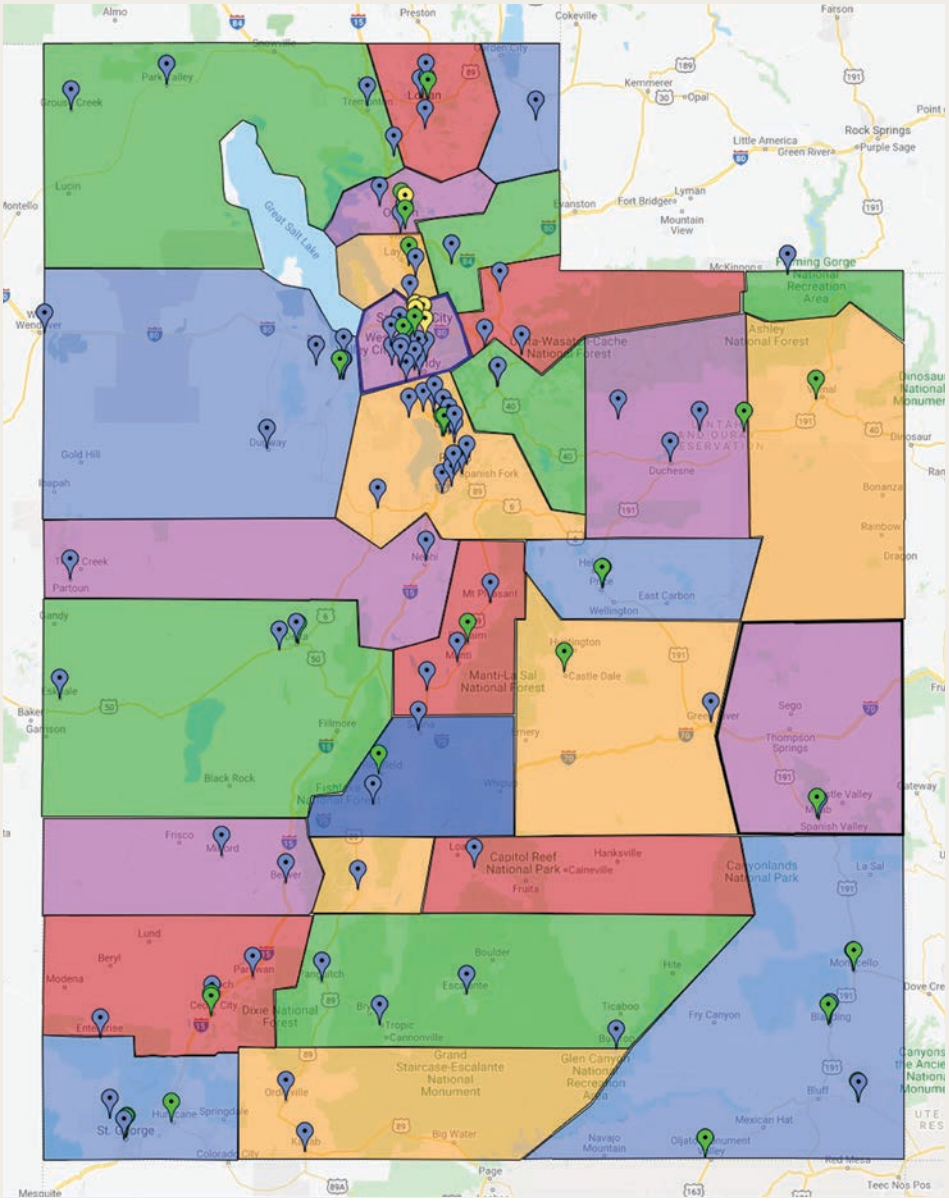
Collaborating to Boost Digital Teaching and Learning

Utah's Digital Teaching and Learning initiative assists K-12 organizations in using technology to enhance learning outcomes through trainings, wireless access points and software applications. The program is a collaborative effort between UEN, the Utah State Board of Education, local schools and the Utah State Legislature. In 2019, the third comprehensive, statewide inventory of education technology showed a marked increase in the use of UEN's network by K-12 students.

Patty Norman, UETN Board Vice-chair, presented Utah's Digital Teaching and Learning initiative at the 5th Annual China Education Innovation Expo in Zhuhai, China. More than 21,000 international educators attended the conference.

Distance Education

UEN's Distance Education supports up to 400 daily courses, scheduled meetings and other events with Interactive Video Conferencing (IVC). This service also includes robust desktop video conferencing with more than 1,750 users, allowing students, educators and administrators to collaborate from almost any location.



This Google map shows the primary locations of UEN'S 1,250 IVC video units, where a given location may have multiple classrooms and meeting rooms.

UtahFutures.org

Milestones for 2019 include achieving 250,000 registered users and the addition of Launch My Career, a tool for comparing the return on investment for Utah postsecondary programs.

UtahFutures

Preschool Pioneer

New resources for young learners and their caregivers include "Yana and Egbert", a series of videos from Massachusetts Institute of Technology's Early Childhood Cognition Lab.

PRESCHOOL PIONEER
Utah's Online Library

Utah's Online Library

Through this service, students access dozens of high quality research tools and resources whether at school or at home.

Utah's Online Library

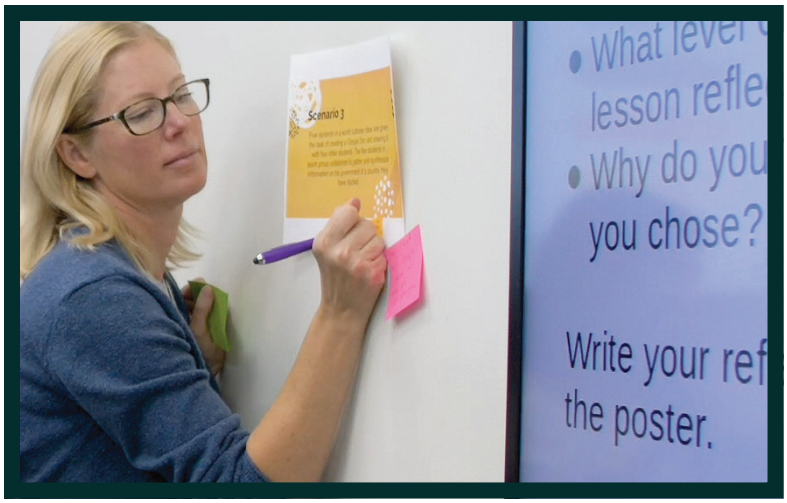
SUPPORT

We provide excellent professional learning experiences.

Providing International Credential

This year, UEN became one of only eleven Certified Authorized Providers of the International Society for Technology in Education (ISTE) Certification. The training focuses on the use of education technology in meaningful and transformative ways. It is aligned with ISTE's Standards for Educators and serves as another pathway for educators seeking to earn an Ed Tech Endorsement credential to supplement their Utah teaching license.

UEN's ISTE Certification courses serve as an alternate path for educators seeking the EdTech Endorsement.



In an episode of PDTV, Utah educators describe how UEN's ISTE training program helps meet learner needs. 100% of UEN's Professional Development trainers earned their ISTE-certified credential in 2019.

Canvas Training

Through UEN Professional Development, 2,507 educators learned how to engage students through Canvas, the online learning management system licensed by UEN on behalf of K-12 and higher education institutions throughout the state.

K-12 Ed Tech Support

UEN staff helped provide ongoing professional development for the education technology community through a range of activities including C-Forum, which meets throughout the school year, and the Utah Coalition for Educational Technology's annual conference.

UEN Welcomes National Colleagues

This year, UEN played a leading role in national conferences to foster the exchange of ideas that fuels innovation. Events included the National Educational Telecommunications Association (NETA) 2019 Conference and CPB Thought Leader Forum for public media, CS For All for computer science educators and SC19, an international supercomputing conference.

UEN-TV AIRED MORE THAN 181 HOURS OF PROGRAMMING FOR TEACHERS.

- America's History in the Making
- Biography of America
- Bridging World History
- Democracy in America
- Design Time
- Learning from Costa Rica
- PDTV
- Physics for the 21st Century
- Power of Music
- Reading and Writing in the Disciplines: Math/English/History
- Social Studies in Action
- Teaching Channel
- Teaching Foreign Languages
- Teaching Reading 3–5

Winner of the 2019 Digital Government Summit Award for Best Partnership, UEN's Troy Jessup hosts a bi-weekly webcast to support district specialists in improving local area network security and functionality.

Credit: UVU Marketing

As part of UEN's Education Innovation Roadtrip, public media colleagues from across the nation explored Utah Valley University's "Roots of Knowledge" installation and other exceptional resources.

HEALTHCARE

We support the well-being of Utahns with health-related services and programming.

As featured by UEN PDTV, San Juan County students learn anatomy using Utah State University's digital anomatage simulated cadaver. Students also engage remotely with this interactive resource via UEN's Distance Learning service.

The SafeUT App

To save lives around the state, local partners developed an app that connects youth in crisis with counselors 24/7. UEN produced a video telling the story of the app's creation and impact.

RAMP4Health

In partnership with the University of Utah's Wellness & Integrative Health and the National Library of Medicine, UEN developed a website with curated resources on healthy lifestyles and health science careers.

UEN-TV

UEN-TV AIRED MORE THAN 80 HEALTH SCIENCE AND WELLNESS PROGRAMS.

- Aging Matters: Aging and the Workplace
- Aging Matters: Loneliness and Isolation
- Autism: Emerging from the Maze
- Hooked RX: From Prescription to Addiction
- Morning Fit (exercise block)
- Mountains and Manhood
- Overcoming Depression: Mind Over Marathon
- Parent's Survival Guide: Childhood Obesity
- Poverty and Homelessness in Utah
- Power Over Parkinson's
- Sexual Assault in Utah
- Sidelined: Concussions in Sports

uen.org/tv

Linking 70+ Healthcare Clinics and Hospitals

Part of UETN, the Utah Telehealth Network (UTN) connects providers through high quality network and support services.

Telepharmacy

By virtually connecting licensed pharmacists at the Wayne Community Health Center in Bicknell with dispensaries in Green River, UTN helps save rural residents a four-hour trip to fill prescriptions.

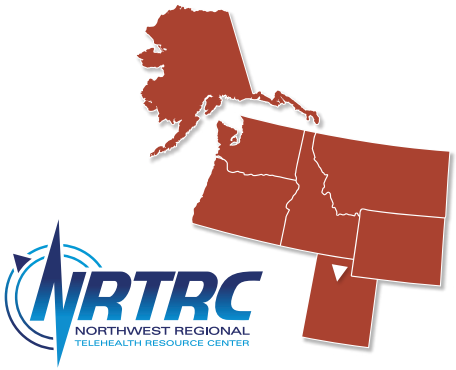
Behavioral Health

The University of Utah's College of Nursing Perinatal Depression program has continued to thrive, using UTN services to provide rural mothers access to mental health professionals.

Teleoncology

Cancer patients in Uintah Basin have a new option to consult with specialists in Salt Lake City using distance technology. The program allows rural patients to reduce travel to the metro area, saving an average of $1,000 for each trip avoided.

Utah Telehealth Network (UTN) serves as home for the Northwest Regional Telehealth Resource Center (NRTRC), a seven state region. Deb LaMarche, Associate Director of UTN (fourth from left) with colleagues at the NRTRC's 2019 conference.

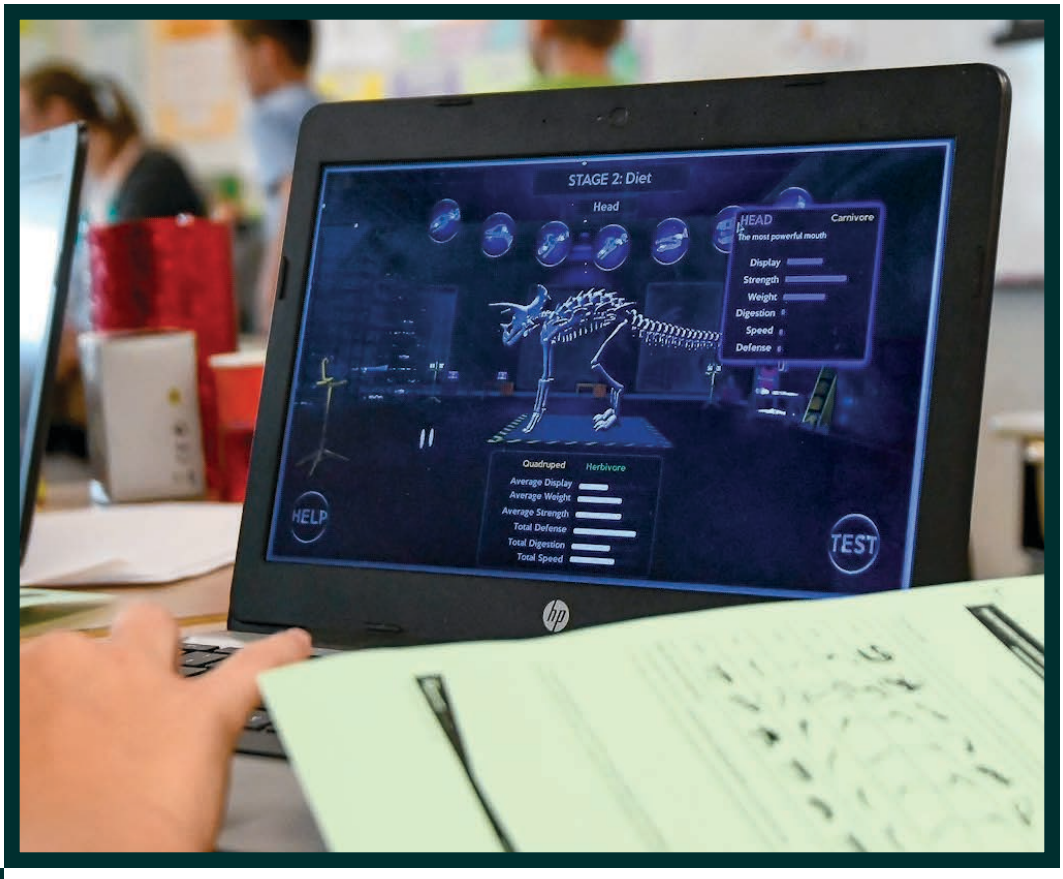


PARTNERSHIPS

We help our partners deepen impact and achieve sustainability.

Boosting Critical Thinking with Innovative STEM Program

To help learners engage in meaningful scientific inquiry, UEN supported the Natural History Museum of Utah (NHMU) and the University of Utah's College of Education in their creation of Research Quest. This series of online investigations allows students to explore some of the same questions NHMU research scientists ask, studying the same objects and data and comparing their findings. "UEN's expertise in web design for education has been integral to the project's success," says Madlyn Larson, Director of Education Initiatives at NHMU.



As featured on the UEN website, "SciTech Now: Research Quest" describes the project led by NHMU and the University of Utah's College of Education. A grant from the National Science Foundation will result in new Research Quests for Utah learners and teachers.

Software Licensing

UEN saved Utah schools $11M on key applications used by learners, staff and faculty at K-20+ schools and libraries by negotiating with vendors on behalf of public education.

More Affordable Telecomm Access

To lower net costs of connecting schools, UEN attained $24.5M in reimbursements for local education agencies through the FCC Universal Service Fund's E-Rate program.

Research Support

Researchers at Utah's universities depend on UEN's connections to access local and regional high performance computing centers to advance their work.

Utah Instructional Media Consortium (UIMC)

UIMC is comprised of representatives from every school district and Regional Service Center. UEN turns to the consortium for guidance on instructional media purchases and new ways to explore and promote media literacy.

Early EdU

Early childhood educators are gaining access to college-level coursework through an online program developed by the University of Washington Early EdU Coalition, made accessible to Utah educators by UEN with support from higher education, the Utah Head Start Association and the Department of Workforce Services.

Library Resources

UEN rolled out a new STEM education resource to engage young patrons of Utah's public libraries. Featuring the research-based series "Yana & Egbert" from Massachusetts Institute of Technology's Early Childhood Cognition Lab and Planet Nutshell, UEN's multimedia activity station supports scientific reasoning in a fun way.

UEN'S ADVISORY COUNCIL IS COMPRISED OF REPRESENTATIVES FROM THESE DIVERSE PARTNER ORGANIZATIONS:

- K-12 School Districts and Charter Schools
- Regional Educational Service Centers
- Rural and Urban Telecommunications
- Utah Department of Workforce Services
- Utah Public Media
- Utah State Board of Education
- Utah State Legislature
- Utah State Libraries
- Utah System of Higher Education
- Utah System of Technical Colleges

UEN helps library partners enhance story time for early learners with activities based on "Yana & Egbert".

BUDGET

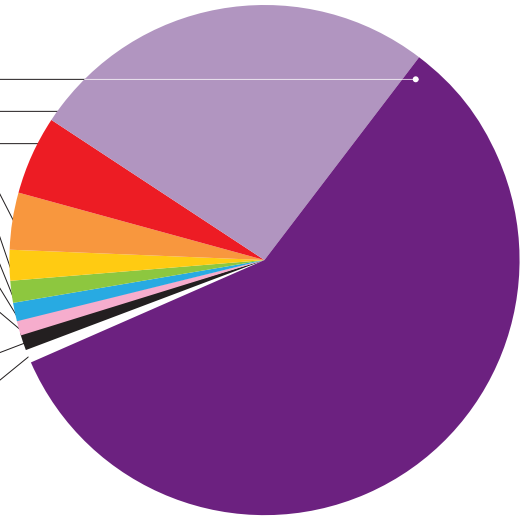
We are responsible stewards of public resources.

Matching Our Services with Stakeholder Priorities

We match our budget and services to the priorities and missions of the institutions we serve.

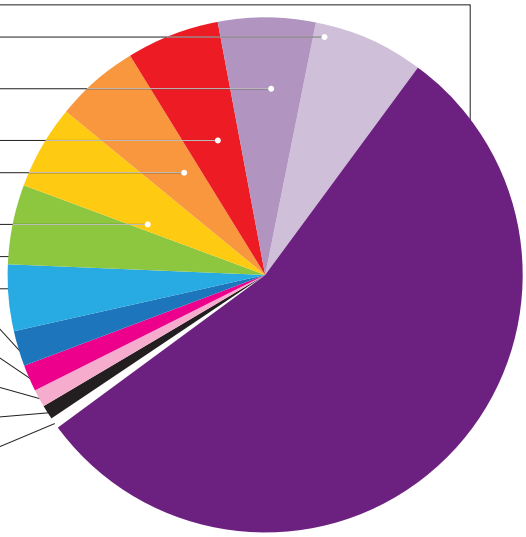
Public Education	$30,722,010	58.10%
Higher Education	$13,850,630	26.20%
Telehealth	$2,573,491	4.90%
Libraries	$1,907,009	3.60%
Other	$1,072,693	2.00%
Technical Colleges	$786,641	1.50%
State Government	$595,941	1.10%
General Public	$476,752	0.90%
Community Learning Centers	$476,752	0.90%
Private Schools	$405,240	0.80%
TOTAL	**$52,867,159**	**100%**

Estimates as of June 30, 2019



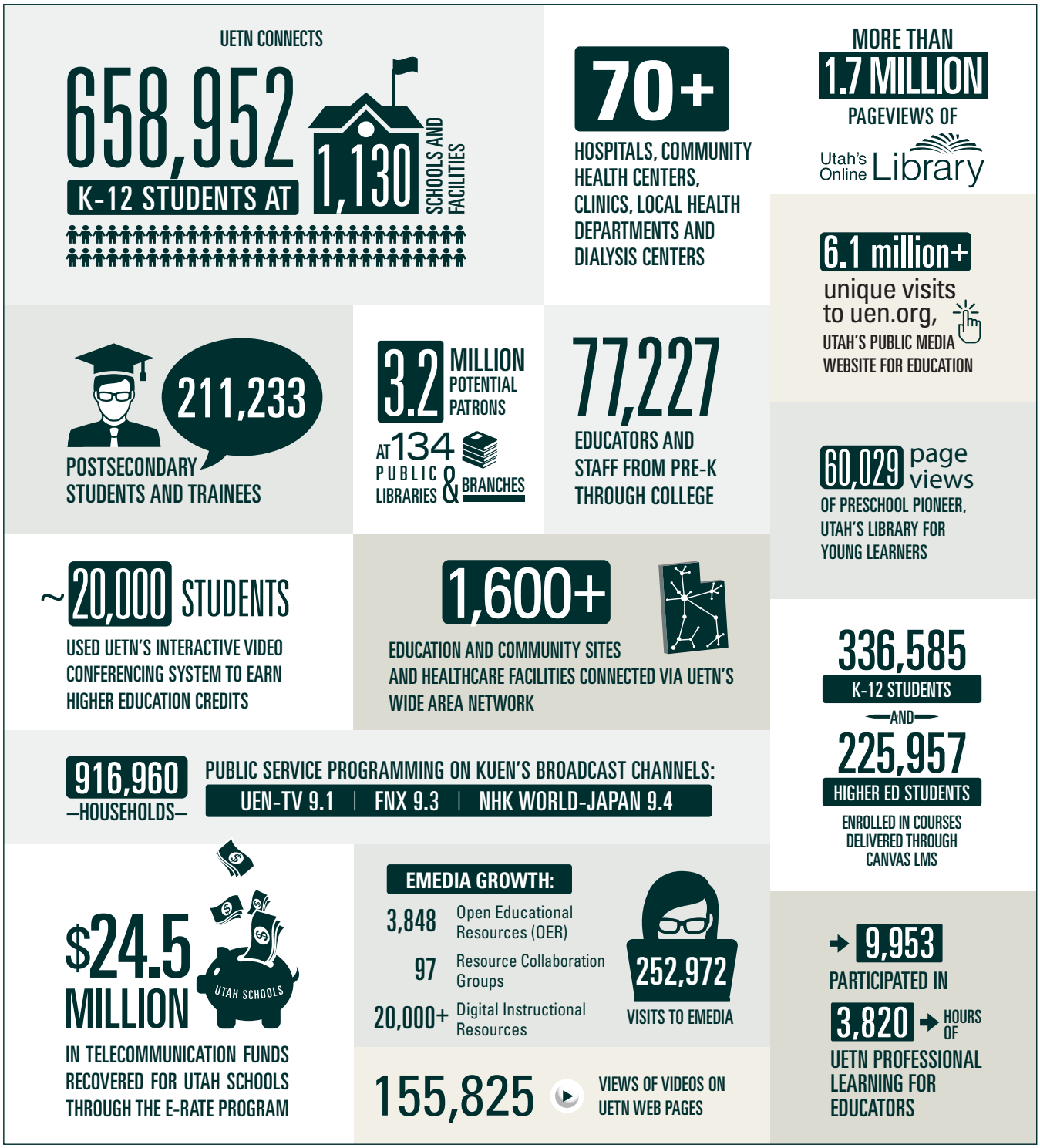
UETN spends almost 85% of its budget on behalf of public education and higher education.

Wide Area Network	$28,800,153	54.50%
Operational Services	$3,781,033	7.20%
Interactive Video Conferencing (IVC)	$3,190,924	6.00%
Learning Management System (LMS)	$3,006,406	5.70%
Internal Network Support	$2,923,399	5.50%
Teaching and Learning Tools	$2,741,985	5.20%
Telehealth Services	$2,573,491	4.90%
Broadcast Services	$2,227,625	4.20%
Training	$1,138,564	2.10%
External Network Support	$887,012	1.70%
Utah's Online Library	$605,797	1.10%
E-Rate Support	$503,108	1.00%
Regional Support	$487,662	0.90%
TOTAL	**$52,867,159**	**100%**



UETN's budget supports services that are key to Utah community members.

Performance Indicators for 2019



As of December 2019

Utah Education and Telehealth Network

Strategic Plan 2015-2020

UEN.ORG UTN.ORG

We network for education and healthcare

Purpose

We connect people and technologies to improve education and healthcare in Utah.

Initiatives

NETWORK

We will administer a secure, advanced, and stable network.

Grow capacity > Anticipate and plan for demand > Manage security risk > Support HPC for research > Merge UEN and UTN infrastructure > Leverage peering

APPLICATIONS

We will curate and support high quality resources and tools.

Align to core needs and standards > Support certificate and degree programs of our partners > Maximize cost savings through consortia > Improve accessibility > Foster telehealth adoption and deployment

SUSTAINABILITY

We will secure ongoing funding for our work.

Be transparent and efficient > Maximize E-Rate and Healthcare Connect funds > Seek grants and partnerships > Leverage other state and national initiatives

BROADCAST

We will extend programs and projects to benefit our community.

Manage FCC spectrum repack > Leverage the IP network, new technologies and applications > Produce new media > Engage with and amplify the work of community partners

DEVELOPMENT

We will provide excellent professional learning experiences integral to the work of our stakeholders.

Support Canvas training > Develop telemedicine resources > Staff adequately to reduce waitlists > Increase support for school administrators, libraries and healthcare community > Serve as a regional telehealth resource and leader

Values

Service: *open, honest, clear and respectful*

Innovation: *new ideas and creative solutions, a responsible risk-taking culture*

Diversity: *respect for all*

Equity: *fairness, impartiality, balance*

Fiscal Responsibility: *stewardship, public trust*

Empowered Staff: *opportunities for professional growth*

Communication: *seek input, give voice to staff and stakeholders*

Safety: *welfare, security, and well-being of staff and constituents*

Performance Indicators

1. 100% of sites connected at sufficient capacity to meet need
2. Network uptime and availability at 99.9% or greater
3. # of videoconferencing classes
4. Increase in composite # of telehealth enabled activities
5. Website utilization metrics
6. $ savings through consortia purchasing
7. # of PD courses and credit hours completed
8. Finances stable and sustainable
9. % of return on E-Rate and Rural Healthcare funds