

## Welcome

On behalf of the Utah Education and Telehealth Network (UETN) Governing Board, staff, partners and advisors, I am proud to share highlights of our work in 2021.

The impressive sunrise view on the front cover, made by staff member Susan Cohen, shows Monument Valley Health Clinic (left) and Tse' Bii' Nidzisgai Elementary School (right), two of more than 1,700 community sites supported by UETN along with several of the more than one million households benefitting from UETN broadcast and online services. Beyond the beautiful landscape, this photo illustrates UETN's mission: to support education and healthcare for all Utahns with high quality content, robust technology and reliable support.

As Utah's public media network for education and telehealth, UETN provides services that support equity and reduce barriers. In 2021, we rededicated ourselves to assuring that values in our Strategic Plan, including equity, diversity, inclusion and accessibility, are evident in our work. This report summarizes initiatives to engage youth in highly diverse schools with media production, connect school nurses with telehealth equipment to support students, help communities obtain broadband and more.

Behind the scenes, we've also been at work. UETN's Governing Board reaffirmed its Diversity Policy and Content Policy and supported a new diversity working group. Three of our senior staff completed the Public Media Diversity Leaders Initiative. We solicited input from accessibility and cultural consultants to review and advise on projects and developed a self-assessment tool producers use to screen their work for representation and bias. We're already working toward additional improvements in 2022.

Despite the challenges of a second pandemic year, UETN excelled with a record-breaking number of productions, expanded services and inspired achievements. I hope you enjoy reading the stories of our good work in 2021 and invite you to follow our 2022 progress through the social media links at uetn.org.

Thanks for your support,

Lyent

Laura G Hunter, PhD

KUEN Station Manager UETN Chief Operating Officer



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

Front Cover: UETN's robust network brings critical infrastructure to sites such as the Monument Valley Community Health Center (left) and Tse' Bii' Nidzisgai Elementary School (right). Photo credit: Susan Cohen



Take a sneak peek of innovative projects already underway.



Follow the links in the online report to learn more.

# Mission Accomplished: Statewide Network Upgrade

UETN provides critical broadband infrastructure to education and healthcare sites throughout Utah. To accommodate increased traffic, technology advances and future growth, UETN has completed a multi-year project to boost network capacity from 10 to 100 gigabytes throughout the state. The project included the creation of diverse routes to protect sites from service interruptions and upgrades to



# Recent upgrades help UETN meet increasing demand

Year-over-year growth in demand on the network

2021: 226.16 PB

2020: 178.33 PB

One petabyte (PB)=



214,748,364 **Books** 



26.8%

increase

in 2021

4 Years 4K HD Video



2,000 Years MP3 Songs

## **Closing Education's Digital Divide**

To address the need for equitable access to education resources, **UETN and Murray City School** District tested an innovative solution using private LTE to connect hundreds of students working at home to their school network for remote classes and homework.



Governor Cox joins Murray High School students to activate the new network.

# **A Network of People**

**Humans of UETN** is a new series of digital-first videos to reveal the career paths

and insights of the wide-ranging specialists who help make Utah's public media network for education and healthcare possible.

Scott Larsen shares what he loves about his career in the first episode of Humans of UETN.



# **Coming up Next**

More learners and patients will have improved access to distance healthcare and education services as UETN continues to replace microwave with fiberoptic cable. To date, approximately 42 miles of new fiber have been placed in San Juan County.

# **Community**

## **Mentoring Future Broadcasters**

UETN connects youth with opportunities to develop media skills through In the Field with UEN-TV, a community engagement program to foster the next generation of public media professionals. This year, our producers shared insights on broadcast careers and production

skills with more than 220 participants from community groups and schools.

Producer Cassandra Taylor shares interview tips with students at Meadowlark Elementary in Salt Lake City.

# **Community Arts Partnerships**

UETN is proud to connect our viewers with Utah's thriving arts community. Recent productions got young children moving with lessons from the talented dance crew of 1520 Arts, celebrated projects commemorating voting rights milestones and highlighted an extraordinary student art exhibit.



**Art Connection: A Path Forward** tells the story of a project to mark the anniversary of women's suffrage in Utah.

# **Connecting Community Members to Opportunity**

UETN provided training to schools and filed applications for libraries seeking support through the FCC's Emergency Connectivity Fund. In Utah, the fund provides an estimated \$30 million for more than 118,000 devices and 15,000 home internet connections so students and patrons can participate in education and employment opportunities.

To help Utah families and households struggling to afford internet service during the pandemic, UETN and its partners promoted the FCC's Emergency Broadband Benefit (EBB) on air and online. Almost 30,000 Utah homes have enrolled in the program.

5,341

hours of closed captioning services for accessible content



The 17th Annual UEN American Indian Film Festival returned to live screenings of films including **Skindigenous**. Events at Dixie State University, the University of Utah, Utah Valley University and Weber State University engaged 150 participants.



Salt Lake County Library's ToshoCon was a perfect opportunity to introduce more than 1,500 youth to NHK World-Japan.



# **Coming up Next**

New year, new name—same great resources for early learning: Preschool Pioneer is being rebranded as Preschool Path, Utah's Online Library for PreK-2 children and their grown-ups. The site received more than 58,000 visits last year.





## **Connecting Students, Instructors and Services**

Utahns can keep learning wherever they are with UETN's services. Distance Education bridges miles between students and instructors for access to classes otherwise unavailable in their districts. Tools like Nearpod make it fun for K-12 students to build understanding and share what they're discovering, and our learning management system, Canvas, connects learners K-20+ for synchronous and asynchronous coursework. The non-commercial content through Utah's Online Library, eMedia,

uen.org and UEN-TV supports formal and informal education for Utahns of all ages.

"We provide opportunity," says
Kimberly Davis, Distance Learning
Specialist. Through UETN's interactive
video conferencing technology and
support, students who need to take a
course that isn't offered locally can join
one offered hundreds of miles away.



# **Connecting Students, Instructors and Services**

#### **Distance Education**

Toolbod



56,376

30.6M+

620,000+

courses delivered via Interactive Video Conferencing

K-20+ users





uen.org

1.6M+
page views

23,000+ education resources

7M+ unique views

# **Engaging Learners with Resources for Science and Engineering**

To ignite student interest in science, Utah's new Science and Engineering Education (SEEd) standards unite concepts with hands-on skills. UETN worked with Utah State Board of Education

specialists and other educators to curate and evaluate more than 1,000 lesson plans, presentations, labs, simulations, textbooks, videos and other content. The resources are now in a special UEN eMedia collection.



I really like the SEEd hub available through eMedia. I will now be able to send these activities out to my distance learners as well as complete activities in class with my face-to-face students."

- Teacher, Granite School District



eMedia Product Manager Katie Blunt shares best practices for engaged learning with viewers in an episode of UEN PDTV.

# **Supporting Learners Across the Public Media System**

Thousands of public media professionals accessed more than 40 on-demand courses through Public Media Learns. UETN provides infrastructure, instructional design and developer support for the National Educational Telecommunications Association program.

**UEN-TV for Thinkers** 24/7 educational content for

1M+

Utah households

Our combined work is truly transformational and would not be possible without the support of UETN."

— Tim Eernisse, Vice President of Education, NETA



# **Coming up Next**

UEN Digital Press with Pressbooks: In response to partner requests, UETN obtained a five-year consortium license to support digital publishing for students, faculty and staff at 16 Utah colleges and universities.







# **Insights for Educators Anytime, Anywhere**

Utah teachers can find content to help them work smarter through the digital-first series **UEN PDTV** and the **UEN Homeroom** podcast. Through more than 30 new productions, these programs addressed topics ranging from astronomy and digital literacy to Canvas course templates and featured interviews with **This Land**'s Rebecca Nagle and the leaders at OER Commons.

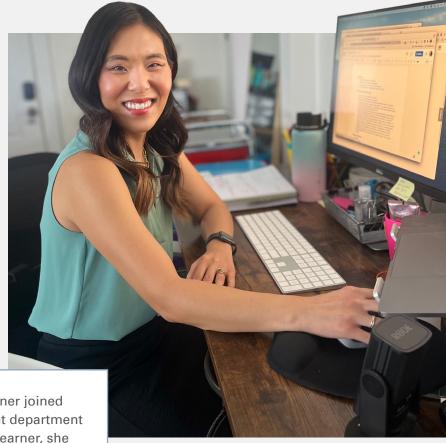


8,909

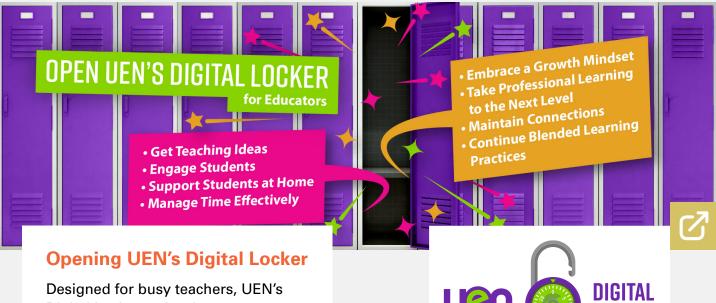
educators participated in

85,368

hours of UETN professional development



Award-winning educator Kayla Towner joined the UETN Professional Development department this year. As a teacher and lifelong learner, she loves sharing ways educational technology can support students at all academic levels.



Designed for busy teachers, UEN's Digital Locker makes it easy to find high-quality resources on topics such as engaging students, blended learning practices and time management tools. Launched in August 2021, the locker was opened by more than 1,300 visitors.

1,028,161

educational sessions hosted on UETN's Webex and Zoom platforms by Utah educators and administrators in 2021

# **Fostering Peer Learning Communities**

UETN connects thousands of education community members with one another to share insights and spark collaboration on teaching tools, network security and optimization, innovations and more. In addition to hosting peer learning communities for more than 1,000 members, UETN's education newsletters reached 25,733 subscribers.

# **Coming up Next**



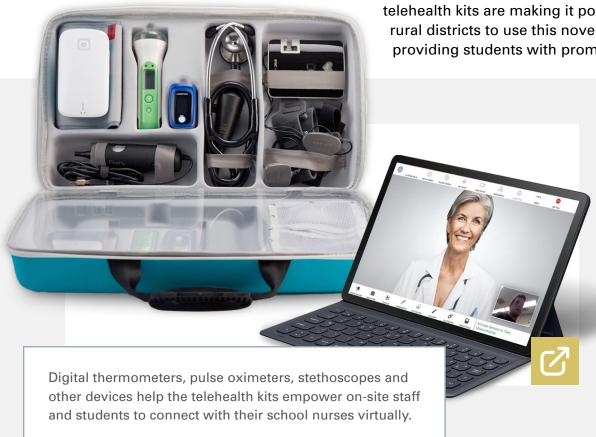
UETN and Utah State Board of Education (USBE) will launch a three-year project to empower administrators to earn the Ed Tech endorsement fully online. This initiative builds on UETN's successful Leadership in Blended and Digital Learning project in which 225 school principals and administrators participated. To date, 1,350 classroom educators have participated in the Ed Tech endorsement.



# **Telehealth Program Builds New Partnerships With School Nurses**

In rural school districts and other areas where a single school nurse serves multiple locations, timely care for students during school hours can be challenging. To address this problem, UETN and partners successfully piloted a program that uses digital tools to virtually connect students

> to nurses for real-time visits. More than 170 telehealth kits are making it possible for 20 rural districts to use this novel approach to providing students with prompt care.



# **Unprecedented Growth** for Telehealth Service

Patients and practitioners can now consult virtually via a **UETN** platform that delivers high-quality video with security needed to protect privacy. Eight organizations and 24 clinics are using the service, with up to 1,800 telehealth visits a month in 2021.

UETN connects people and technology at

centers, clinics, local health departments and dialysis centers

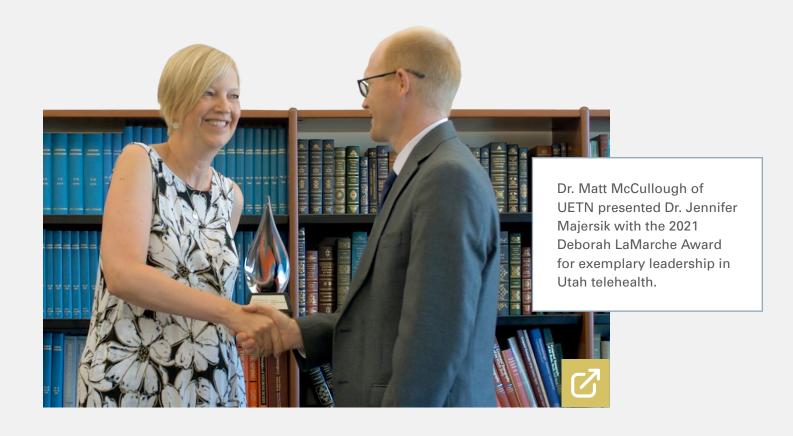


# **Advancing Professional Development for Providers**

As managers of the Northwest Regional Telehealth Resource Center (NRTRC), **UETN** is delivering online courses to help healthcare providers learn more about telehealth.

37,924

enrollments in healthcare professional development courses





# **Coming up Next**

Building on the successful pilot of the telehealth kit program, UETN, the Utah Department of Human Services and local mental health authorities are investigating expansion of the program to provide mental health services to students.

As a step toward a more inclusive Utah, the One Utah Council on Equity, Diversity, Inclusion and Access (EDIA) designed an online course for state leaders. Through 21 days of resources curated by the Council, the course provides participants an opportunity to develop shared points of reference about social and economic issues affecting the communities they serve. UETN supported this partner project with instructional design and technical services, hosting the course pilot in which 59 senior-level leaders explored topics ranging from the Neuroscience of Bias and Health Equity to key moments in Utah history that continue to resonate today.



To support equitable access to educational technology in Utah, UETN collaborated with partners to conduct the fourth statewide inventory of digital teaching and learning equipment, resources and tools. Working with Connected Nation, the Utah State Board of Education and other stakeholders, UETN collected data from 100% of the state's K-12 districts and charter schools.



UETN's educational technology inventory [...] is another strong example of how UETN consistently helps coordinate efforts to benefit Utah's educational community."

— Todd Call, Educational Coordinator, Digital Teaching and Learning, USBE



The response to this challenge has been incredibly positive. UETN was a critical partner in this initiative. We could not have done this without them."

— Nubia Peña, Senior Advisor of Equity and Opportunity, Office of Governor Cox

# **Selecting Multi-Platform** Content

UETN updated our public media content policy in consultation with public library partners across the state. The policy now addresses digital-first, video-ondemand and other distribution channels in addition to traditional television broadcast.

# **Faster Processing for Critical Research**

As part of the Internet2, POWDER and SCinet networks, UETN helps researchers at partner institutions benefit from regional, national and international high-performance computing (HPC) services. For example, UETN's recent upgrades empowered a team working to improve COVID-19 medications to run essential simulations more quickly than ever before without affecting service for other stakeholders.

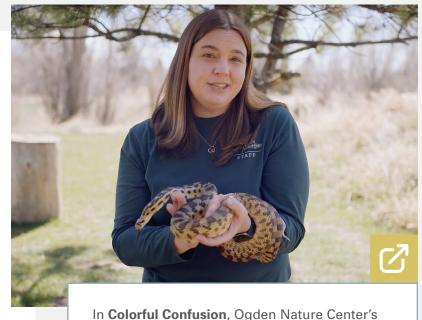


UETN helps us move, process and analyze large-scale data faster than ever before. Together, we help researchers advance toward potentially transformative or life-saving breakthroughs."

— Dr. Thomas Cheatham, Professor and Director, University of Utah Center for High-Performance Computing

# **Spotlight on STEM**

UETN amplified the work of local informal education partners specializing in science, technology, engineering and math (STEM) through video productions, web services and community events. This year's STEM highlights included the national broadcast of a Camp TV episode featuring Ogden Nature Center and the Natural History Museum of Utah's Research Quest program, which provided more than 500,000 learning experiences this year.



Stefanie Zwygart teaches young viewers how animals use color and pattern to survive.



# **Coming up Next**

As Utah celebrates 125 years of statehood, UETN will launch an online hub of educational resources to support partners working to deepen civic engagement and understanding. This project builds on previous UETN partnerships such as Getty Ready, Vote Utah and Spike 150.

## **Adobe Spotlight**

- Becoming an Adobe Creative Educator
- How To Create Videos With Adobe Rush
- How To Create With Adobe Aero
- How To Use Adobe Character Animator
- New Adobe Creative Educator Course

#### **Art Connection**

- A Path Forward
- Art and Growth

## **Camp TV**

- Breaking With 1520 Arts
- Colorful Confusion With Ogden Nature Center
- New Jack With 1520 Arts



In an episode of **Camp TV**, the 1520 Arts crew shares fundamental hip-hop moves young viewers can do at home.

# **The Canvas Report**

- Canvas Assignment View Update
- Combining Canvas Tools in the Classroom

- How To Reassign an Assignment in Canvas
- How To Set Up Modules In Canvas

#### eMedia Update

- Creating an eMedia Remix
- Creating eMedia Web Resources
- Creating Student Facing Resources
- Curating Resources
- Exploring the Search Tool
- How To Create Your Own Open Educational Resources
- How To Find Curated Content for the Classroom
- How To Find Curated Resource Hubs
- Reimagine Teaching Hub
- Using the UEN Lesson Plan Template

#### **Humans of UETN**

Scott Larsen

# **Nearpod News**

- Adding Interactive Video
- How To Use Nearpod's Whiteboard Tool
- How To Use Nearpod Immersive Reader
- How To Create a Drag and Drop Activity
- How To Use Live to Student Paced

#### **PDTV**

- Introduction to Ed Tech Competencies
- Student Engagement
- Student Innovation @ Launch HS

- Top 10 Video Tips
- · Using Tech To Make Time
- Utah Coalition of Educational Technology 2021 Conference Recap
- Virtual Conferences

#### **Some Good Education News**

- Making Teachers a Priority
- Senior Sendoff
- Students Lead
- Thank a Librarian

# **Technical Services Spotlight**

- Eduroam in Utah
- Exploring the Potential of PLTEs
- Hosting Events Using Zoom
- How To Host Webex Meetings

#### **UETN CARES**

- Higher Ed Tech Lending
- Infrastructure—Higher Ed and K-12 Wireless



Art and Growth features recent high school graduates discussing their art and creativity during the pandemic.



- Telehealth and Virtual Nursing Labs
- · Wireless and Broadband Access

with educational technology.

# **Utah Online Library Updates**

- eMedia Open Author
- · Gale in Canvas
- Gale in Context and eMedia Hubs
- Getting Specific With Topic Finder
- Getting Started With Gale Reference Collection
- How To Use Culture Grams
- How To Use Utah News Resources
- NoodleTools
- NoveList Plus
- Researching With EBSCO
- Using Scrible in the Classroom
- What's New With eMedia
- Your Guide To Science Online
- Your Guide To Soundzabound

# **Budget**

# **Performing With the Highest Professionalism and Quality**

We follow sound fiscal and management practices in a responsible and efficient way. We create and reinforce trust by communicating openly about our work.

# State Appropriation \$156,317,371 87.6% KUEN Grants \$5,177,414 2.9% Federal E-Rate \$16,254,829 9.1% Other Funding \$673,645 .3% Total \$178,423,259

Network	\$31,494,980	17.6%	
Applications	\$11,361,385	6.3%	
Support	\$2,231,789	1.2%	
Broadcast	\$1,901,824	1.0%	
Operations	\$4,082,160	2.2%	
Telehealth	\$2,333,814	1.3%	
CARES Act	\$125,017,307	70%	
Total	\$178,423,259		

## **Featured Links and Resources**

#### Infrastructure

- Network Map uen.org/board/downloads/UETN\_network\_ map.pdf
- Closing Education's Digital Divide uen.org/tech/cbrs
- Murray School District's LTE project uen.org/news/article.php?id=1015
- A Network of People youtube.com/watch?v=E8KREHbBQFM

#### Community

- Mentoring Future Broadcasters youtube.com/watch?v=hSULaNUTMYo
- Community Arts Partnerships uen.org/artconnection uen.org/camptv
- NHK World-Japan uen.org/nhk
- Preschool Path Utah's Early Learning Online Library preschool.uen.org

#### Learners

- Connecting Students, Instructors and Services
   uen.org/distance\_ed/ivc.shtml
   uen.org/nearpod
   uen.org/canvas
   uen.org/uol
   emedia.uen.org/
- Science with Engineering Education (SEEd) emedia.uen.org/hubs/science
- UEN Digital Press with Pressbooks uen.org/pressbooks

#### **Educators**

- UEN Professional Development TV uen.org/pdtv
- UEN Homeroom Podcast uen.org/development/homeroom.shtml
- UEN's Digital Locker uen.org/locker
- Educational Technology Endorsement Program (ETEP) uen.org/development/etep

#### **Telehealth**

- Telehealth Program Builds New Partnerships with School Nurses utn.org/article.php?id=86
- Dr. Matt McCullough Presents Award utn.org/article.php?id=130

#### **Partners**

- Helping Partners Make Data-Informed Decisions uen.org/schooltech
- UEN Content Selection Policy uen.org/ueninfo/guidelines/content-policy. shtml
- Spotlight on STEM youtube.com/watch?v=e7w4u2xBBME

#### **2021 Productions**

- Camp TV: Breaking with 1520 Arts youtube.com/watch?v=SUdJWur01iU
- Art Connection: Art and Growth youtube.com/ watch?v=w3IPKXb3pPE&t=31s
- PDTV: Introduction to Ed Tech Competencies youtube.com/watch?v=2i7TiP0nk8c

# Utah Education and Telehealth Network

We network for education and healthcare

# Strategic Plan 2020-2025





PURPOSE

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

Grow capacity > Anticipate and plan for demand and other exigencies > Manage security risk > Support High Performance Computing for research > Merge UEN and UTN infrastructure > Leverage peering		
Align to core needs and standards > Support certificate and degree programs of our partners > Maximize cost savings and collaborations through consortia > Improve accessibility  Be transparent and efficient > Maximize E-Rate and HealthCare Connect > Seek grants and partnerships > Leverage state and national initiatives > Liaise with appropriators and partners		
Foster telehealth adoption and deployment > Serve as a regional Telehealth Resource Center > Develop valuable and timely telemedicine resources > Serve as a neutral convener for telehealth initiatives > Maintain HIPAA compliant systems and environment > Advance access to telehealth services		
Coordinate and provide training for state-licensed software > Increase support for school administrators, libraries and higher education > Provide opportunities to earn Ed Tech endorsement and related credentials > Produce quality multimedia professional learning content > Continue to understand and promote progressive practices that enhance education through technology		
Support Board governance and Advisory Councils > Update policies and service catalog > Improve diversity, equity and inclusion > Communicate our work through publications and media		
1.100% of sites are connected at sufficient capacity to meet need 2. Network uptime and availability are 99.9% or greater 3. Number of videoconferencing classes for education and telehealth increase 4. Amoun of telehealth technical assistance provided 5. Website, social media and app utilization metrics show increased engagement 6. Data show cost savings through consortia purchasing 7. Increase in PD courses, credit hours and endorsements completed 8. Finances are stable and sustainable 9. The percentage of return on E-Rate and Rural Healthcare funds increases 10. Measures of staff and constituent satisfaction remain positive		

Service: open, honest, clear and respectful interactions, documented policies and actions

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

Diversity: inclusion and respect for all, sta and governance representative of all we serve

Integrity: fairness, impartiality, balance and equity

Fiscal Responsibility: good stewardship and public trust

Empowered Staff: opportunities for professional growth, market-aligned compensation

Communication: seek input; give voice to staff and stakeholders, support engagement across platforms

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