



### **Arizona Telemedicine Program**

Janet Major, B.S.

Associate Director for Telemedicine
Education & Facilities
Arizona Telemedicine Program
Technical Coordinator
Southwest Telehealth Resource Center
Telehealth Board Member & President Elect
United States Distance Learning Association
ATA mHealth, Technology & DL SIG

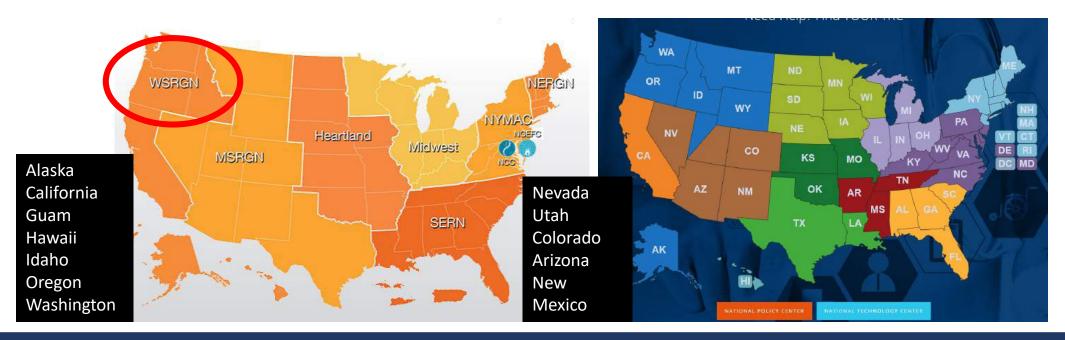






















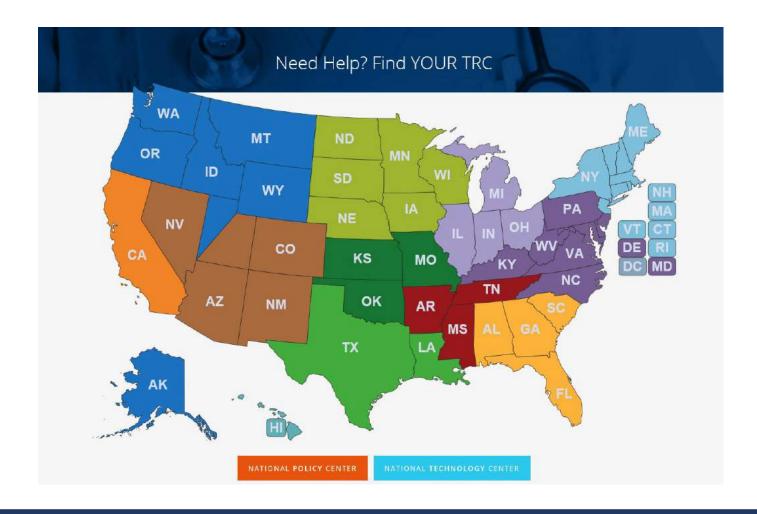
### Mountain States Regional Genetics Network National Consortium of Telehealth Resource Centers

- Northwest TRC
- California TRC
- Southwest TRC
- TexLa TRC





### www.telehealthresourcecenter.org











# ATA 2018 Exhibit Hall Review

### www.telemedicine.arizona.edu/webinar





The Arizona Telemedicine Program, the Southwest Telehealth Resource Center and the Technology Special Interest Group of the American Telemedicine Association

invite you to a free webinar to review the telemedicine and telehealth technology recently exhibited at the American
Telemedicine Association's 22nd Annual Telemedicine Meeting & Trade Show: ATA 2017

#### Webinar

Thursday, August 10, 2017  $\sim$  12:00pm Arizona Time

(12pm PDT; 12pm Arizona; 1pm MDT; 2pm CDT; 3pm EDT)

#### "ATA 2017 Exhibit Hall Technology Review"

#### Learning Objectives

- 1. Review some of the current trends observed at the annual signature event for telemedicine technology.
- 2. Take a virtual tour of the ATA 2017 Exhibit Hall & Showcase at the Florida Convention Center.
- Learn who and where you can go to get access to the best resources in telemedicine and telehealth technology.



Janet Major, B.S. Associate Director for Facilities



Janet Major is the Associate Director of Facilities for the Arizona Telemedicine Program (ATP). She earned her B.S. Degree in Telecommunications from Northern Arizona University with her major emphasis in producing and directing. She has worked at the University of Arizona for 30 years and was initially the primary manager of videoconferencing services at the Arizona Health Sciences Center. She has since been employed by ATP for 20 years. As Associate Director of Facilities. her current responsibilities include the planning, development and installation of the teleconferencing and telemedicine peripheral equipment used in telemedicine sites. She also provides training to healthcare professionals in the effective use of teleconferencing for both clinical and educational applications. Ms. Major serves as Co-Chair for the mHealth, Technology & Distance Learning Special Interest Group of the American Telemedicine Association as well as the board of USDLA; the United States Distance Learning Association, representing the telehealth constituency and ATIC; the Arizona Telecommunications and Information Council, serving on the board with fellow telecommunications experts to eliminate broadband disparity in rural and urban Arizona.

For more information and registration instructions please visit our website: http://www.telemedicine.arizona.edu/webinar





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- . Review some of the current trends observed at the annual signature event for telemedicine technology.
- 2. Take a virtual tour of the ATA 2018 Exhibit Hall & Showcase at the Chicago Convention Center.
- 3. Learn who and where you can go to get access to the best resources in telemedicine and telehealth



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For more information and registration instructions please visit our website: http://www.telemedicine.arizona.edu/webinar





### TeleCon 1997













#### Telehealth Technology Resources

Arizona Telemedicine Program

Telemedicine & Telehealth Service Provider Summit

Southwest Telehealth Resource Center

National Telehealth Resource Centers

ATA American Telemedicine Association

**USDLA United States Distance Learning Association** 

University of New Mexico Center for Telehealth

Project ECHO

TTAC Telehealth Technology Assessment Resource Center

www.telemedicine.arizona.edu

http://ttspsworld.com

www.southwesttrc.org

www.telehealthresourcecenter.org

www.americantelemed.org

www.usdla.org

http://hsc.unm.edu/community/telehealth/

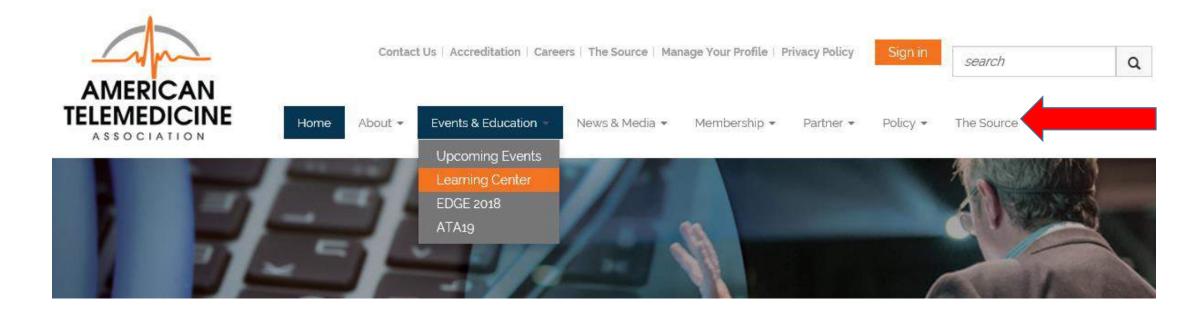
http://echo.unm.edu/

www.telehealthtechnology.org





### http://americantelemed.org/home







#### SIG's

- Telemental Health
- Home Telehealth & Remote Monitoring
- Pediatric Telehealth
- Business & Finance
- mHealth, Technology & Distance Learning
- Telerehabilitation
- ATA Institutional Council
- Telehealth Nursing





- ATA Member Group Leaders
- Human Factors
- International
- ATA Industry Council
- Teledermatology
- Pacific Islands Chapter (PICATA)
- InterstateTelehealth
- Latin American & Caribbean Chapter (ATALACC)
- TeleICU
- Ocular





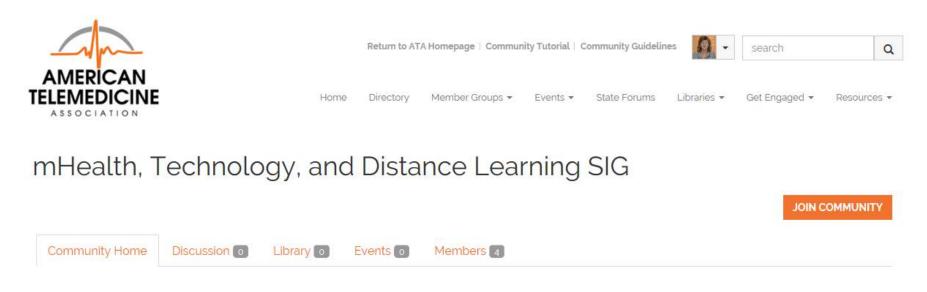
- Canadian Discussion Group
- President's Circle & Institutional
- ATA-DR Guidelines Writing Committee
- ATA Student Council
- State Forums
- Open Forum





### The Source \*for ATA Members

Join as many SIG's as you would like
Be sure to join the mHealth, Technology & DL SIG



**Latest Discussion Posts** 

**Latest Shared Files** 





## mHealth, Technology & Distance Learning Special Interest Group of the ATA

aka: mH, T & DL SIG/ATA

Chair of Technology/Distance Learning Co-Chair of mHealth/Clinical Expert

David Maughan Alex Chiu

Past Chairs: Janet Major and Pramod Gaur





## Stethoscope Recording & PDF on SIG webpage

#### Latest Shared Files MD



August 2018 Distance Learning/Telehealth Calendar of ...

By: Janet Major 5 days ago

August 2018 Distance Learning/Telehealth Calendar of Events ...



Check out the LIBRARY in The Source for the handout ...

By: Janet Major 23 days ago



PDF resource from Jordan Berg

By: Janet Major 24 days ago



#### mHealth, Technology, and Distance Learning SIG

Post New Message

Jul 13, 2018

Check out the LIBRARY in The Source for the handout and Video Link from our Teck Talk about Stethoscopesps "

Reply to Group

Reply to Sender

1. Please join us next month for a technology... Sanet Major

Check out the LIBRARY in The Source for the handout and Video Link from our Teck Talk about Stethoscopesps

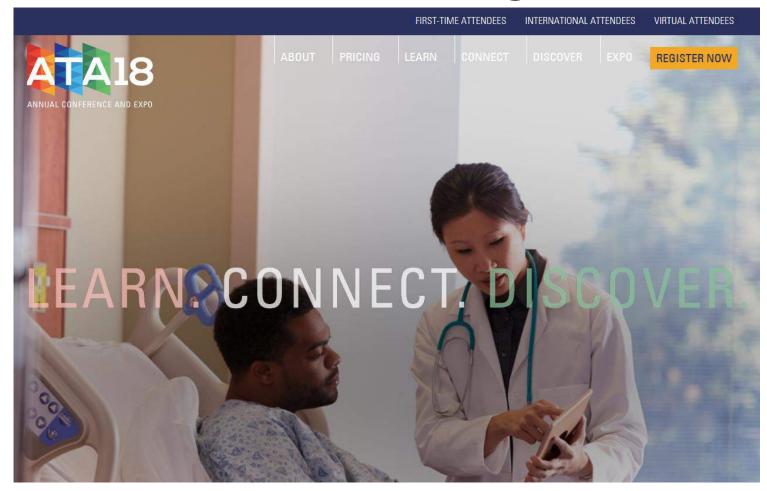


Jul 13, 2018 5:41 PM | **№** <u>view attached</u> Janet Major

Please join us next month for a technology review and virtual tour of the ATA 2018 Exhibit Hall! Details are attached and on our SIG calendar - see you there!

Janet Maior

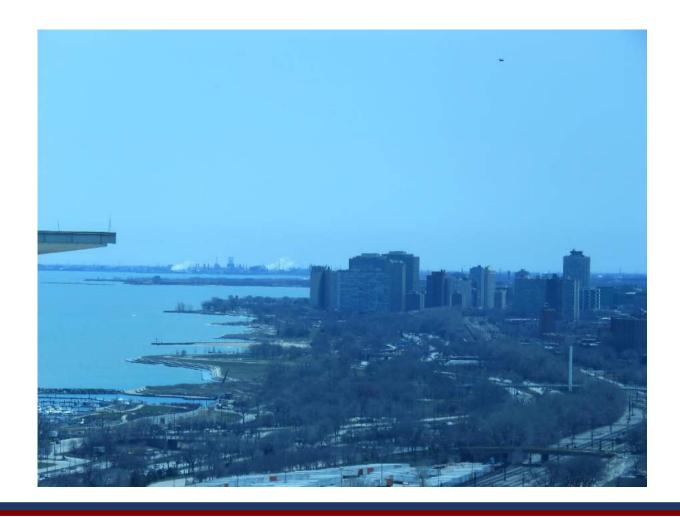
### www.ata2018.org/







### ATA 2018 Downtown Chicago





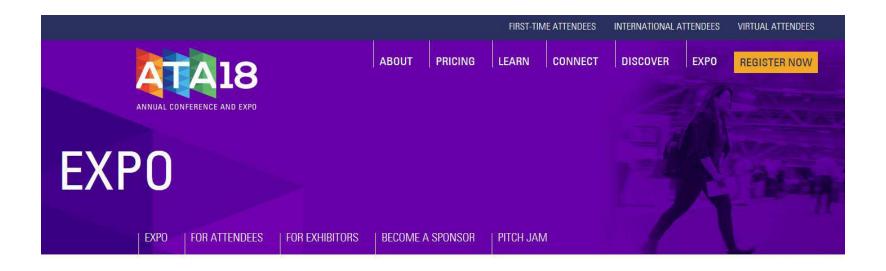








#### **ATA 2018 EXPO**



### The Largest and Most Important Gathering of Telemedicine Professionals in North America

The ATA18 Conference & Expo convenes thousands of healthcare leaders and is focused exclusively on telemedicine. This year, we will celebrate 25 years of success gathering thousands of leaders committed to improving healthcare delivery. ATA18 is the perfect opportunity to find new business, raise your organization's profile, achieve greater brand visibility among those driving the telehealth profession.









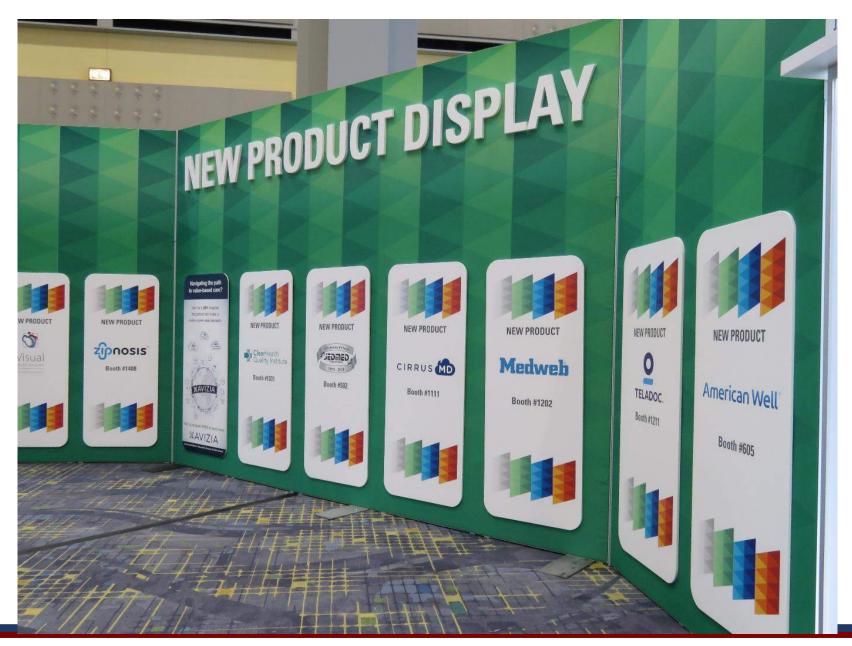






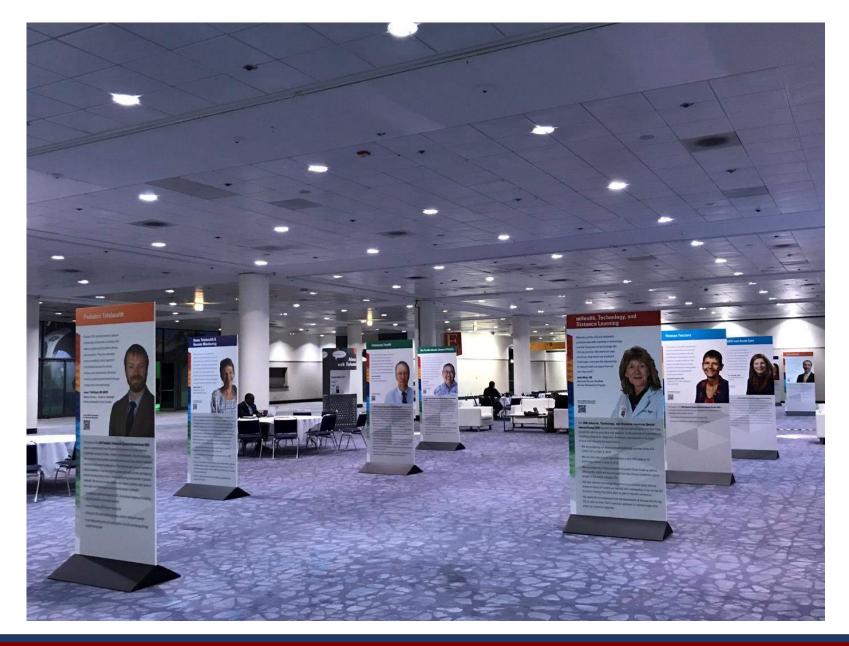












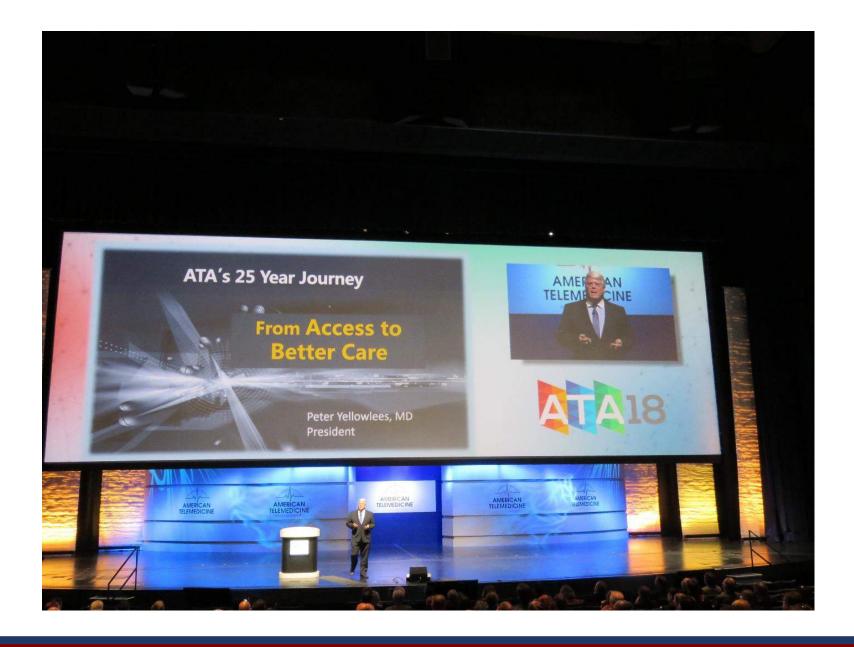






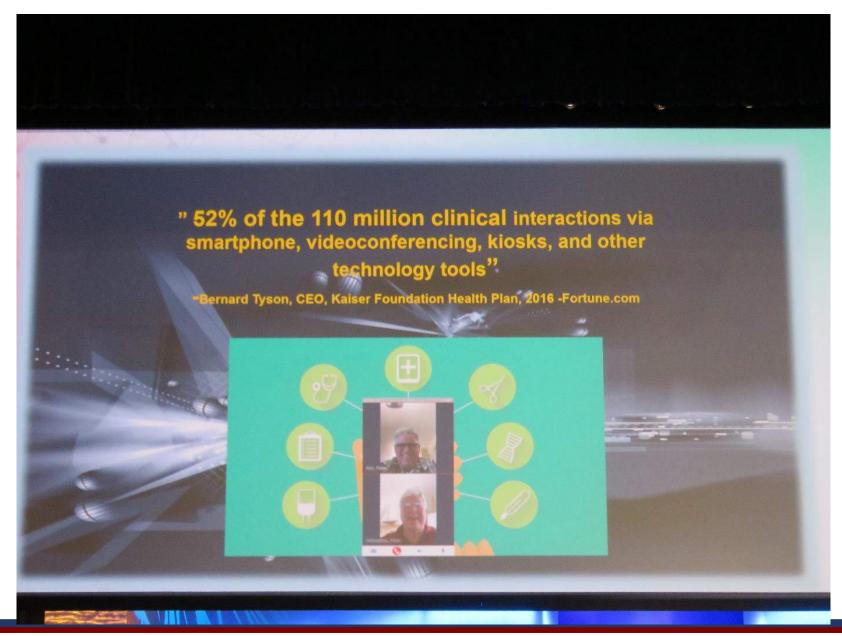






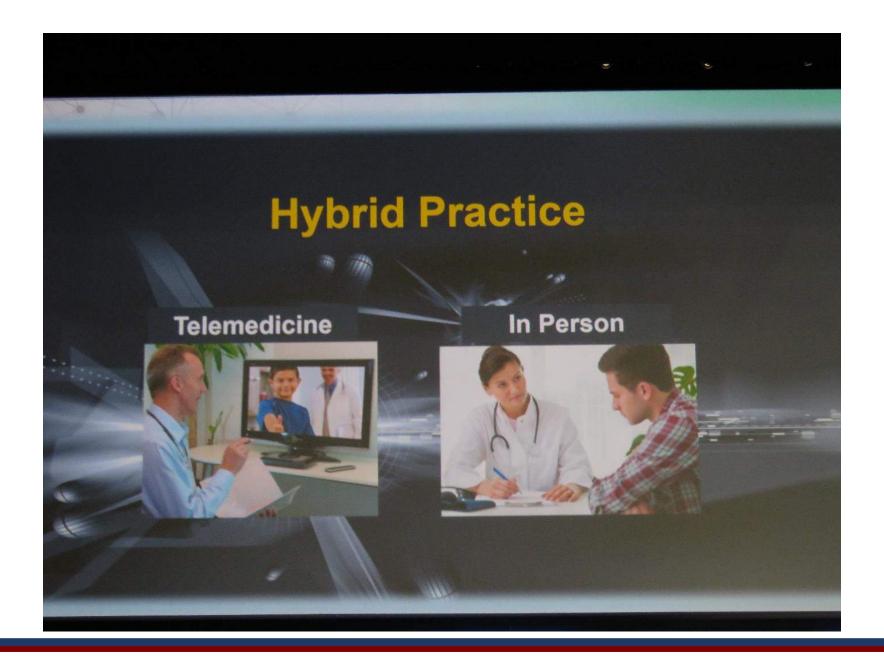














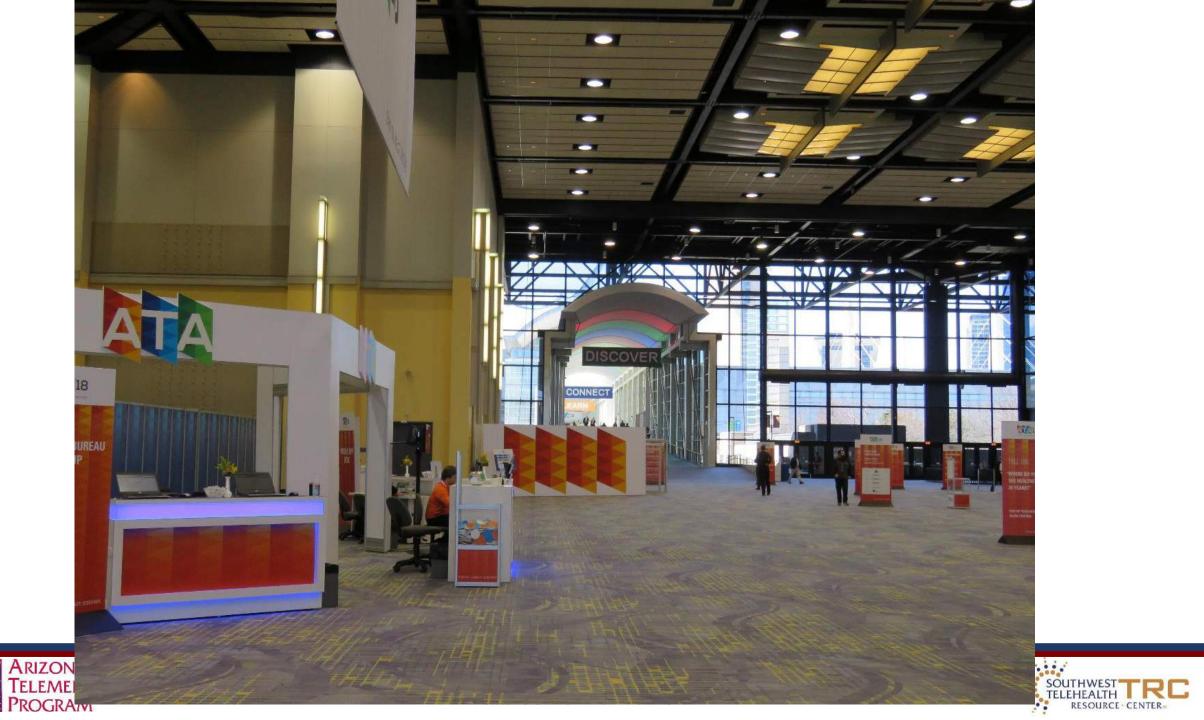


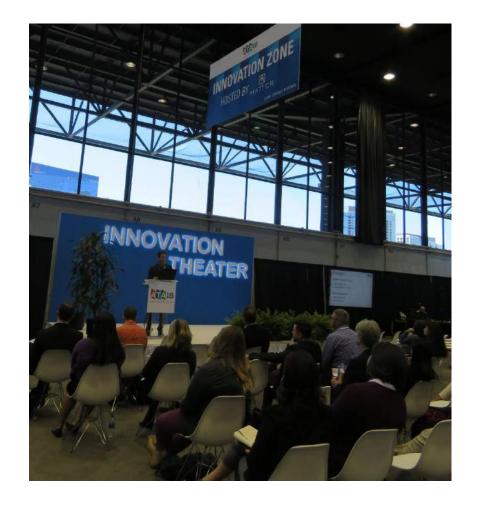


Technology for Telehealth: No longer the tail wagging the dog!



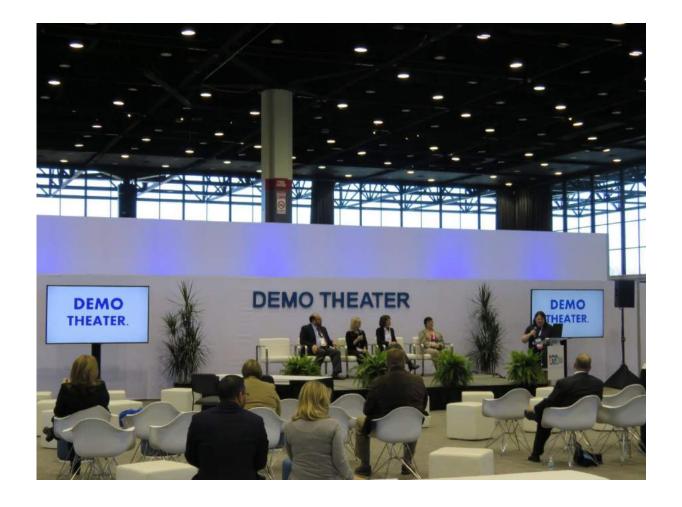






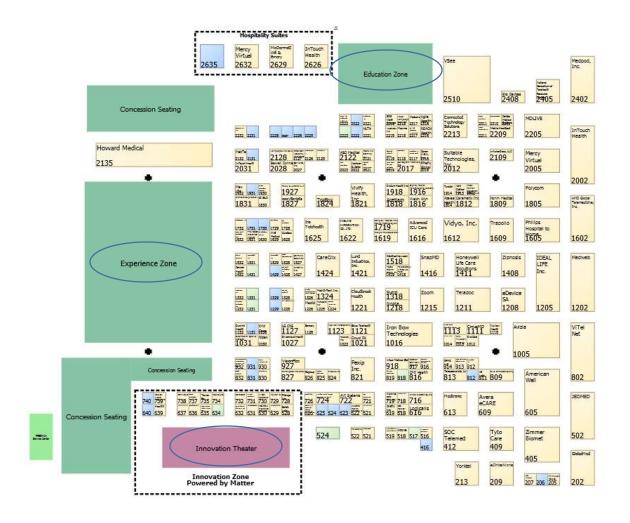














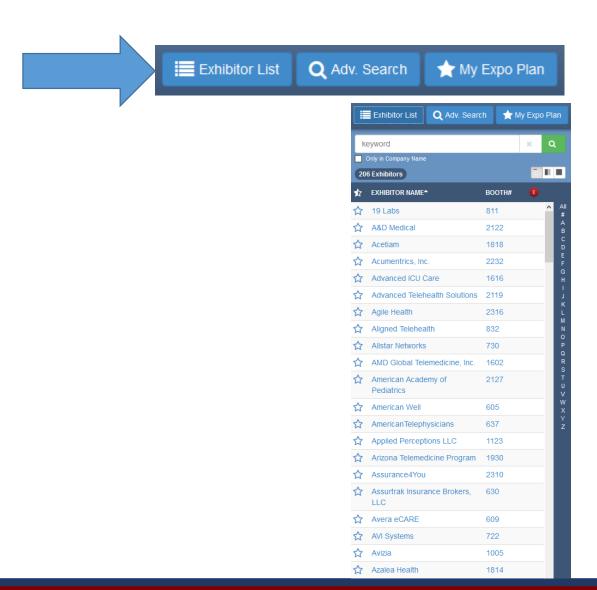


#### ATA 2018













Healthcare technology moves fast. Consumers are fickle. Competition is fierce. Will your innovation stand out from the crowd? Share it and shop it at the ATA18 Pitch Jam!

### 15 minutes that can change your company's future.

The American Telemedicine Association's Annual Conference, ATA18, is the world's largest innovation & networking event focused on telehealth and telemedicine. At ATA18, our attendees aren't just interested in healthcare technology. They are the 5000+ clinicians, academics, policy makers and deciders closest to telehealth and telemedicine. Where better to gain valuable feedback from this super-concentrated micro-segment?

We're looking for 6 promising startups to pitch to our panel of patients, clinicians, tech industry insiders and investors. Startups will have 5 minutes (12 slides max) to pitch, 7 minutes to field questions from our judges, and 3 minutes to close.





## http://www.telehealthresourcecenter.org/







### TelehealthResourceCenters.org











### 12 Regional Resource Centers



### TexLa Telehealth Resource Center

Serving Texas and Louisiana

Phone: 877-391-0487 Direct: 806-743-4440



### Mid-Atlantic Telehealth Resource Center

Serving Virginia, West Virginia, Kentucky, Maryland, Delaware, North Carolina, Pennsylvania, Washington DC, and New Jersey [shared]

Phone: 855-MATRC4U (628.7248) Direct: 434-906-4960



#### Upper Midwest Telehealth Resource Center

Serving Indiana, Illinois, Michigan and

Phone: 855-283-3734



### Southeastern Telehealth Resource Center

Serving Georgia, South Carolina, Alabama, and Florida

Phone: 1-888-738-7210



### Pacific Basin Telehealth Resource Center

Serving Hawaii and Pacific Basin

Phone: 808-956-2897



### Heartland Telehealth Resource

#### Center

Serving Kansas, Missouri and Oklahoma

Phone: 877-643-HTRC (4872)



### South Central Telehealth Resource Center

Serving Arkansas, Mississippi and Tennessee

Phone: 855-664-3450



### Southwest Telehealth Resource Center

Serving Arizona, Colorado, New Mexico, Nevada and Utah

> Phone: 877-535-6166 Direct: 404-712-3868



### Northwest Regional Telehealth Resource Center

Serving Washington, Oregon, Idaho, Montana, Utah, Wyoming and Alaska

Phone: 888-662-5601



### Great Plains Telehealth Resource & Assistance Center

Serving North Dakota, South Dakota, Minnesota, Iowa, Wisconsin and Nebraska

Phone: 888-239-7092



### California Telehealth Resource Center

Serving California

Phone: 877-590-8144



### NorthEast Telehealth Resource Center

Serving New England (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey [shared], New York, Rhode Island, and Vermont)

Phone: 800-379-2021





### **National Resource Centers**



### National Telehealth Policy Resource Center

Serving all Telehealth Resource Centers and All States

Phone: 877-707-7172 Direct: 916-285-1860



### National Telehealth Technology Assessment Resource Center

Serving All Telehealth Resource Centers and All States

Phone: 877-885-5672 Direct: 907-729-4703





## TTAC National Telehealth Technology Assessment Center telehealthtechnology.org







## TRC Neighborhood https://www.telehealthresourcecenter.org/

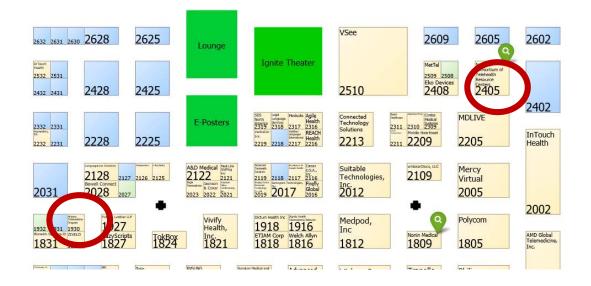








## ATP @ ATA TELEMEDICINE SWTRC @ ATA









# REGISTER NOW!

JOIN US at the 4<sup>th</sup> annual SPS October 8-9, 2018 ttspsworld.com

NEW Venue: The Renaissance Glendale Hotel & Spa Glendale, Arizona



















## Technology for Telehealth

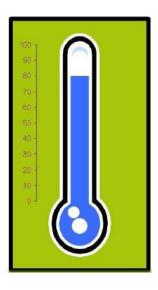
- Resources/where to shop
- Tips on How to shop
- Network and interview who has been doing what with what!
- Pricing
- Ease of use/training protocols/end user
- Network support
- Contractual agreements/licenses/maintenance fees
- Efficiency?





### Trends

- Power of Technology for telehealth
- Partnerships
- Technology Solutions to Challenges
- what is the clinical application?
   How does it make the clinical case workflow more efficient?
- Cool Stuff and Degrees of Coolness





## Technology Trends 2017 & 2018

- Multi-purpose cameras
- Multi-purpose devices
- Cart of the year
- Stethoscopes HOT topic this year
- Audio processing software
- More wearables
- More mhealth
- More Box "to-go" with more varieties of end-users/applications
- "Wall-Doc" or "PAT" wall mounted systems
- Kiosks
- 2018 More Colorful Robots





## Compare Apples to Apples



Borrow and demo anything and everything you can in-house and on your own network in your own environment before you buy it!

















## Hodei telepresence technology

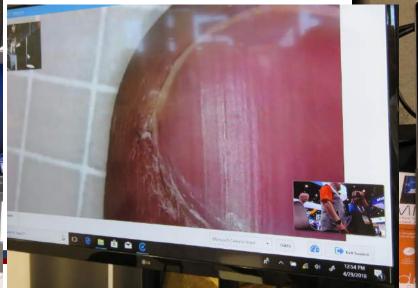




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## Multi-Purpose Cameras & Devices







## tytocare





Comprehensive exams

whenever and wherever you need them

















Heart Exam

Heart Rate

Lungs

Ears

Skin

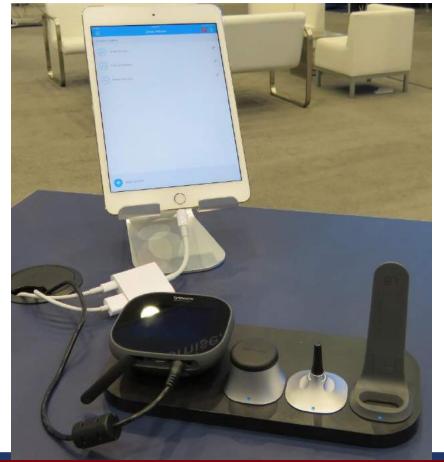
Throat

Temp

Abdomen



## Tytocare 2018























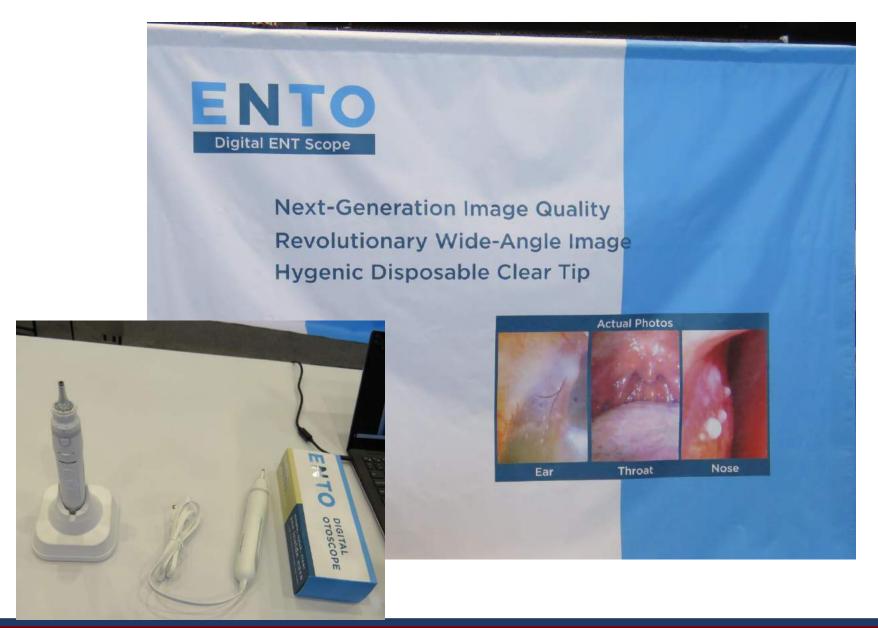


## **Specialty Cameras**













### USB Exam Cam









## Teleophthalmology 2018











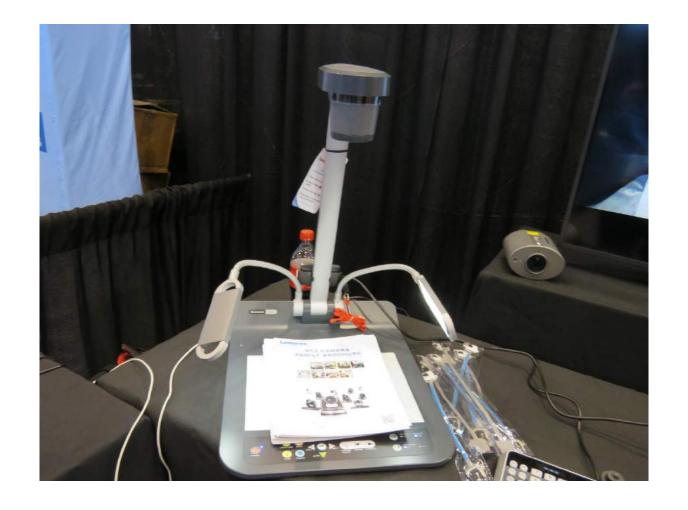
















## LogiTech







## Best Buy – Tripods for Web Cams, Tablets & Cellphones

JOBY - GripTight GorillaPod Stand Tripod for Select Cell Phones - Black







## Echo Cancellation Microphones







## Headphones

- Jabra
- Plantronics
- JBL
- Great for private conversations!





# Video + Audio in one device

LogiTech CC3000e

## Turn any meeting room into a face-to-face video-enabled collaboration room.

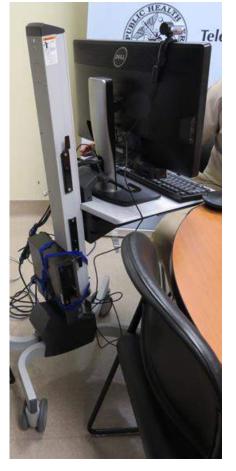


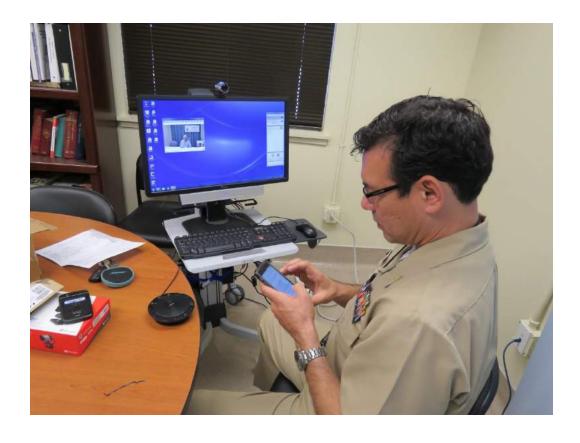
The Logitech ConferenceCam CC3000e





Sells IHS, AZ













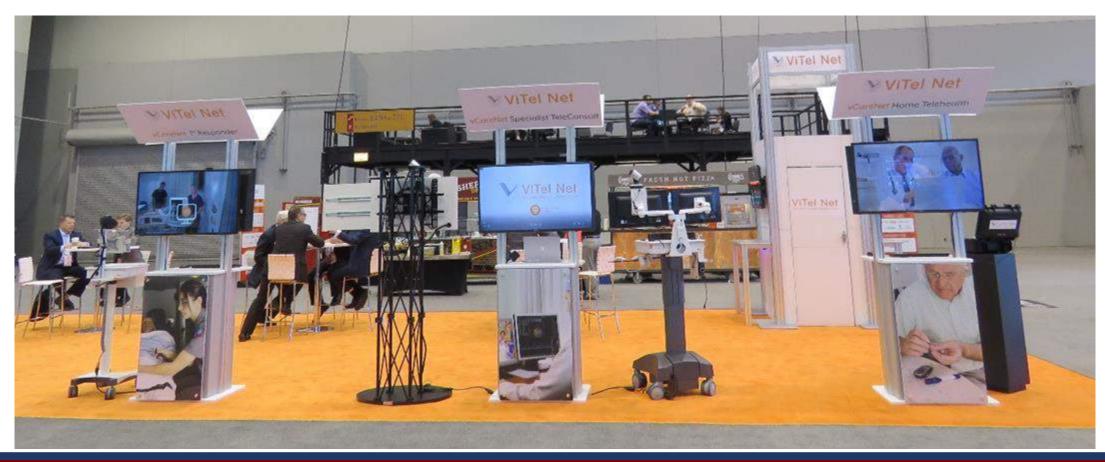
# **CARTS**







# ViTel Net









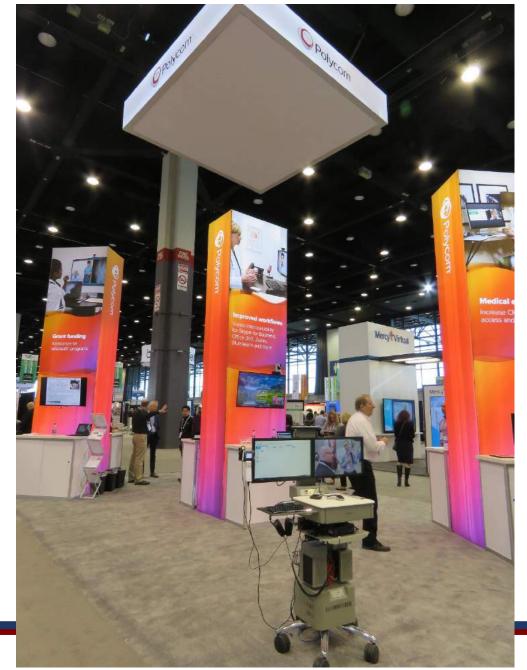






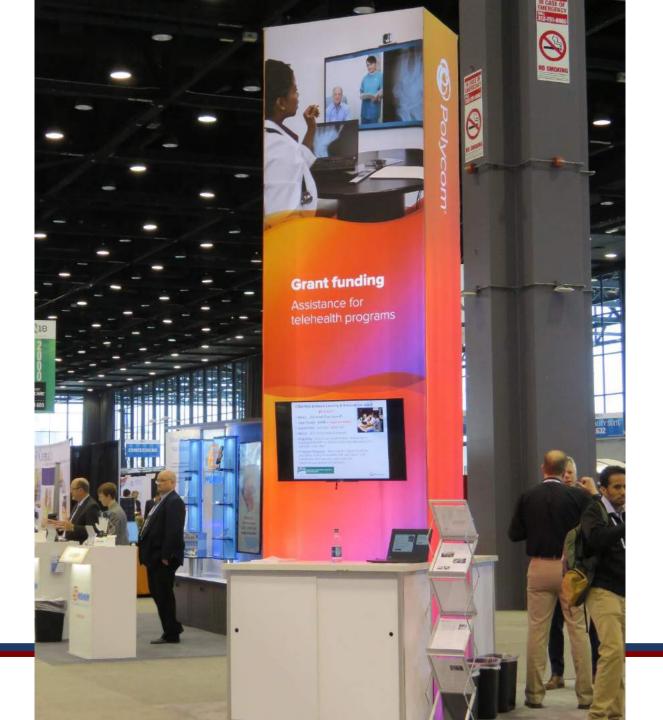






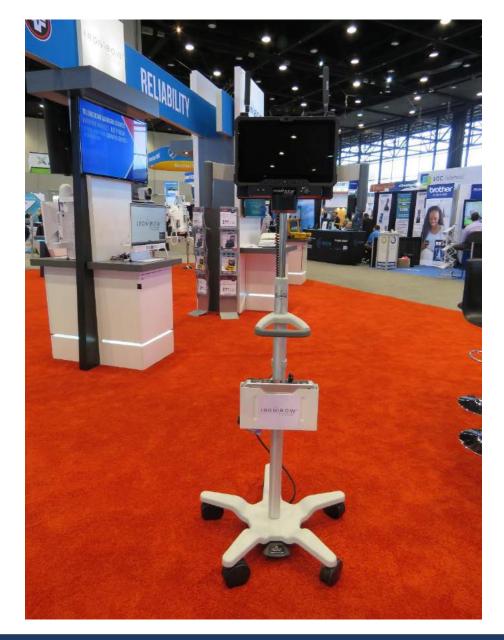


























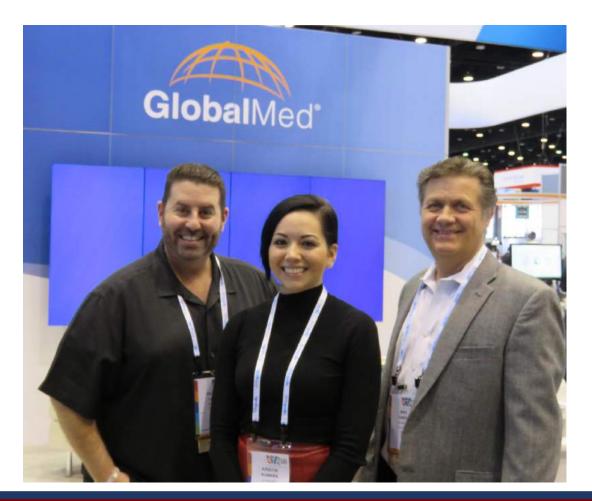
























# AMD













# AMD



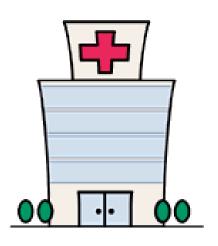




# Telemed Box-to-go & to-go-where? And with WHO?















## Back Pack To Go











## **IPads**

# UA Nursing Professor Receives Telemedicine Grant to Study Tablet Use by Home Hospice Patients to Communicate with On-Call Nurses

Arizona Telemedicine Program Equipment Grant to provide technology for real-time visualization between the nurse and the patient and their caregiver.

It's the middle of the night. An elderly man in end-stage heart failure receiving at-home hospice awakes gasping for breath. His caregiver immediately phones the on-call nurse, but the drive could take her 30 minutes or more. The caregiver is too afraid to take action on her own, so she anxiously awaits the nurse. As the minutes tick by, the man becomes increasingly distressed and the caregiver grows more upset.

Shortness of breath (also known as dyspnea) is a common challenge faced by caregivers and patients in home hospice, and the leading cause of admissions to the emergency room for hospice patients.

Interested in shortening the time it takes to alleviate patient symptoms and caregiver anxiety, **Kimberly Shea, PhD, RN**, assistant professor at the <u>University of Arizona College of Nursing</u>, conceived of using tablet technology with real-time visualization for patients and caregivers to communicate with on-call hospice nurses in urgent situations

To support testing her idea, Dr. Shea recently was awarded a grant from the <u>Arizona Telemedicine Program</u> as part of its <u>Innovation Awards</u> for her project: "Real-Time Visualization for Reducing Symptom Severity in End-of-Life Care." The grant supports purchase of five iPad-minis with retina display.

"Previous studies evaluating tablet use in at-home hospice have been focused on overall quality of life and anxiety," said Dr. Shea, who has 15 years of experience as a home health/hospice nurse. "What makes my study different is I'm evaluating tablet use in urgent situations. Patient and/or caregiver anxiety can often lead to unnecessary emergency room admissions."

Each tablet will be equipped with real-time meeting software that allows the on-call nurse to immediately visualize important factors, such as a patient's positioning (lying down, sitting up) or breathing patterns and medications available. Accordingly, more individualized guidance can be given to the caregiver for intervening appropriately prior to nurse arrival.





# http://telemedicine.arizona.edu/blog/telehealth-valuable-addition-hands-comfort-care

#### Telehealth is a Valuable Addition to Hands-On 'Comfort Care'

By Kimberly Shea, Ph.D., RN on Oct 15, 2015



Dr. Shea consults with a remote hospice patient via telemedicine.

I am an assistant professor at the University of Arizona, College of Nursing, a full-time position that includes research in my chosen field of health care systems and informatics, in which I have a PhD.

I also work one day a week as a hospice nurse, providing palliative care, which is focused on comfort and quality of life for patients nearing the end of life.





# http://telemedicine.arizona.edu/blog/ua-researchers-using-telemedicine-tackle-asthma-tucson-school-children

### UA Researchers Using Telemedicine to Tackle Asthma in Tucson School Children

By Jane Erikson on Oct 01, 2015



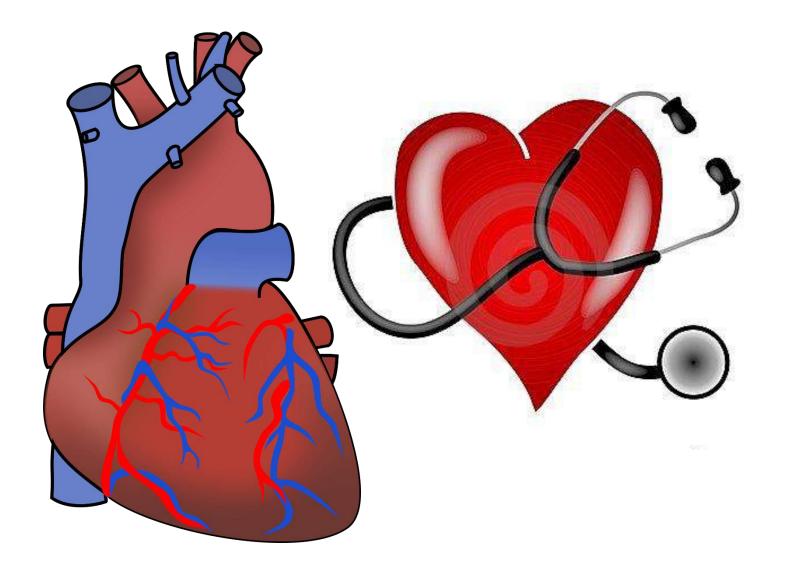
Dr. Conrad Clemens uses real-time video conferencing and digital stethoscope technology to evaluate a child's asthma.

Each weekday morning at 20 Tucson elementary schools, more than 260 children with asthma report to their school nurse or health aid. Each child is given their own corticosteroid inhaler, inhales the medication, then returns to class.

The children are part of a multi-year, NIH-funded study of an asthma prevention program that is school-based for a number of reasons. The study was launched in the fall of 2014 in 20 schools in the Tucson Unified School District (TUSD).

















# Stethoscopes 2018



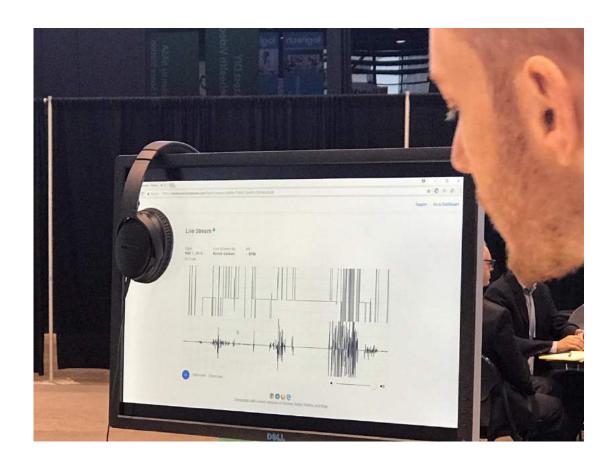


















# **Audio Processing Software**







# KIOSKS

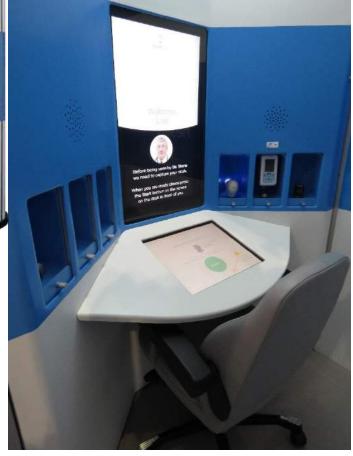








2015









## ViTel Net Kiosk 2018







# ViTelNet Health eKiosk







# 2015











Reno, NV United States

http://www.computerizedscreening.com









#### Mobil Technology















#### Interpretation Service Providers Telelanguage, Cloud Break, MCIS









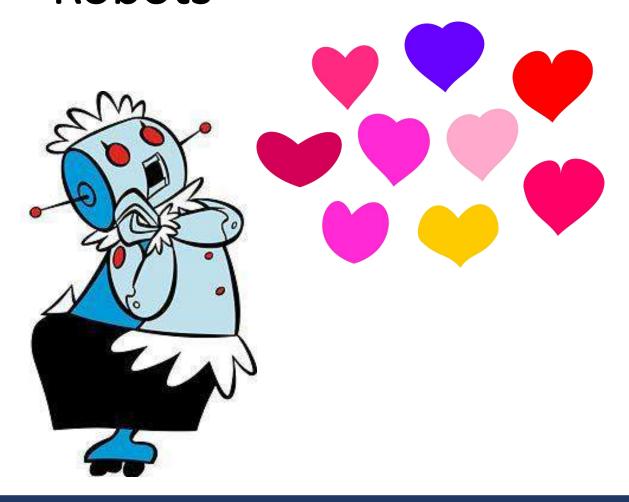


Eric S Yuan, Founder & CEO ZOOM





#### **Robots**









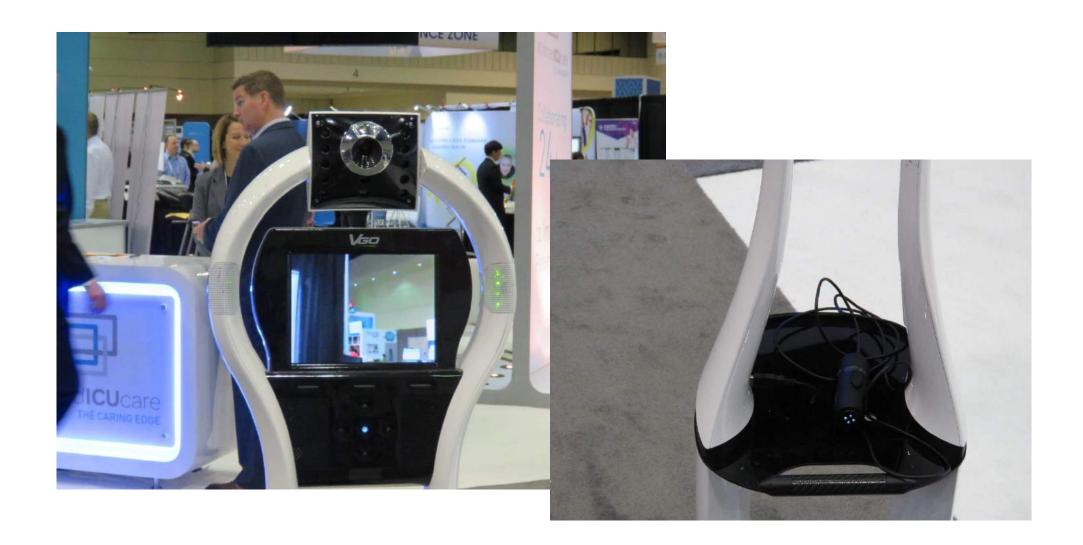














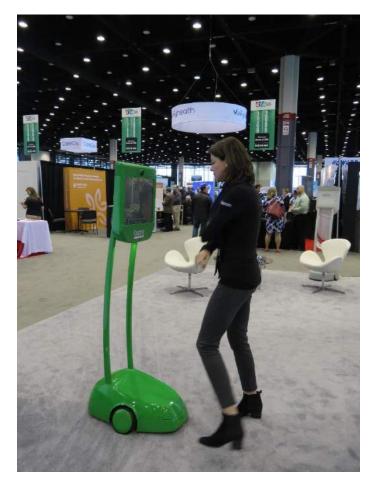






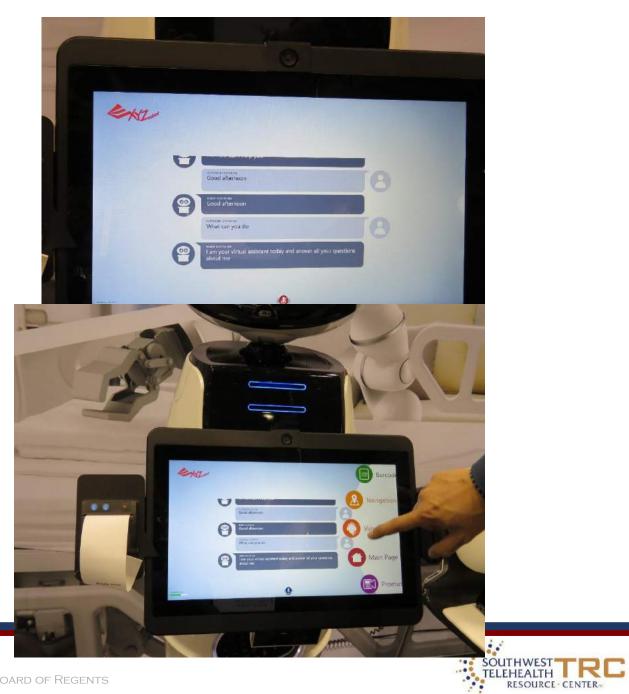






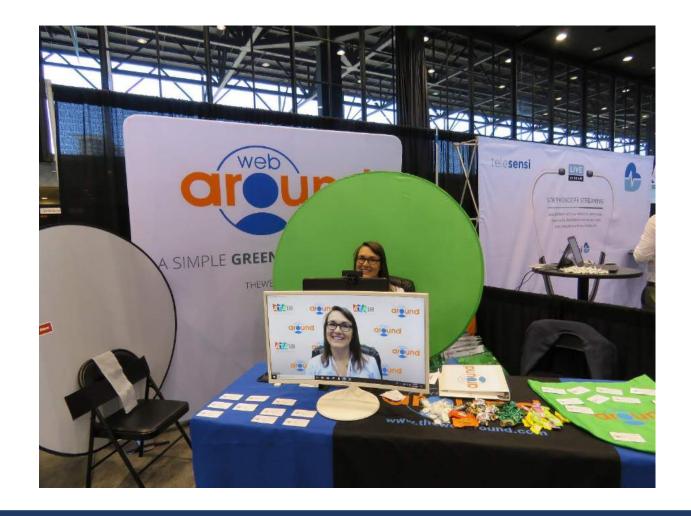








#### THEWEBAROUND.COM



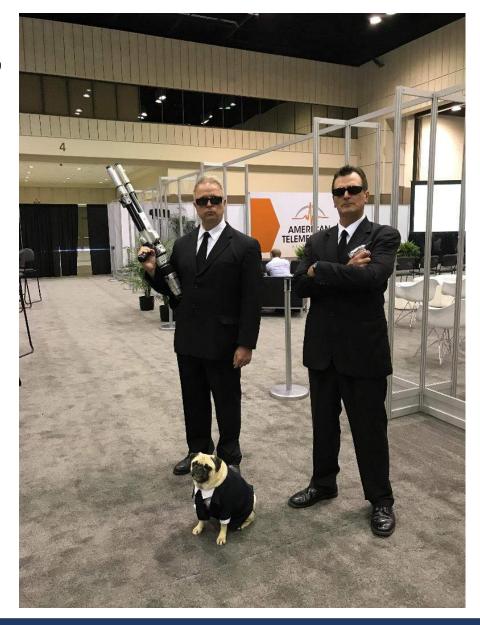




# Bear the St. Bernadoodle @ATA 2016



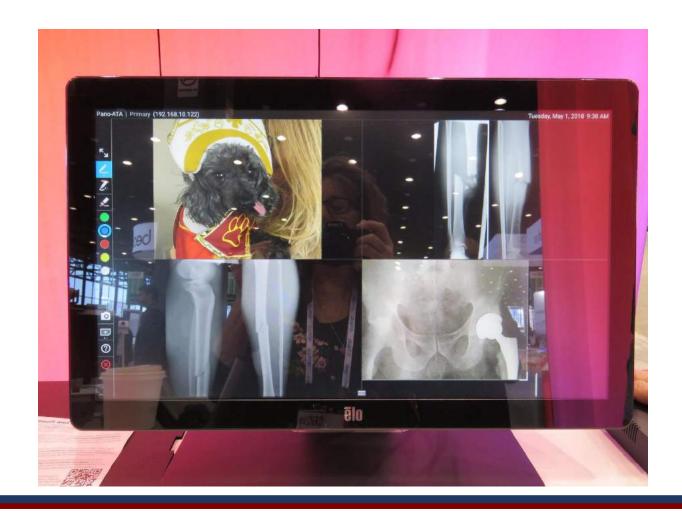
#### **Frank 2017**







### 2018: Video Dog















#### http://www.ata2019.org/

### Together, we will design the future of modern healthcare.

At ATA2019, healthcare professionals and leaders from an array of healthcare and technology sectors unite as one, cohesive community. Attendees learn, innovate, network, and return to their organizations with actionable insights, long-lasting connections, and an enhanced appreciation of telehealth—and how it transforms the way we deliver healthcare.

Please save the date for ATA2019: April 14-16, 2019 in New Orleans. You have so many choices

in terms of conferences: we want to make sure ATA2019 is at the top of your list.





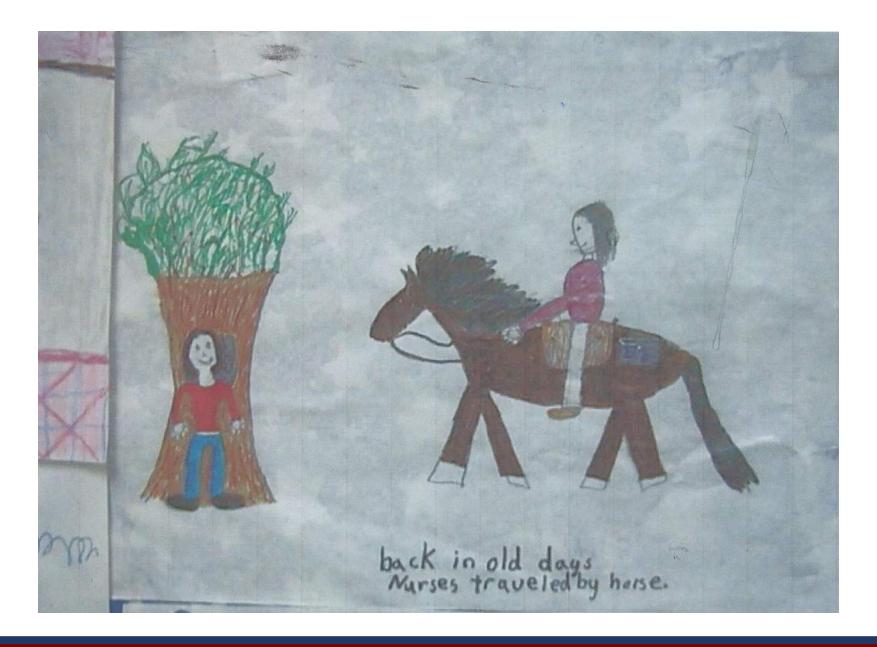


September 26 – 28, 2018 Austin, TX https://ataedge.org/



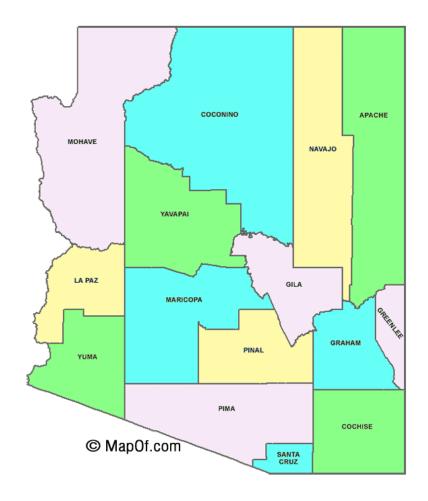






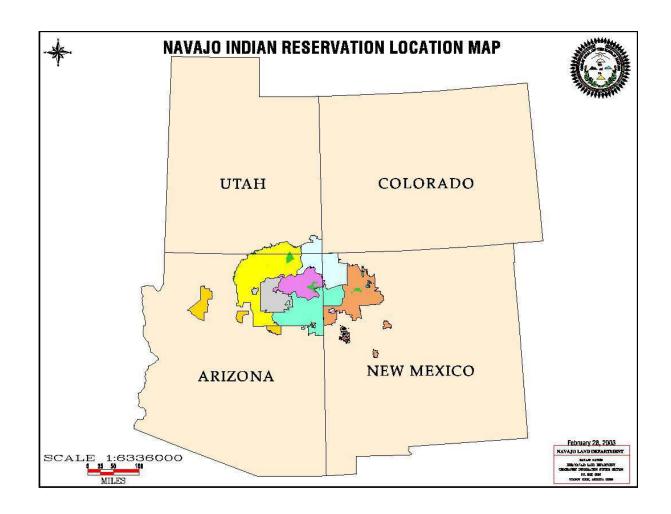








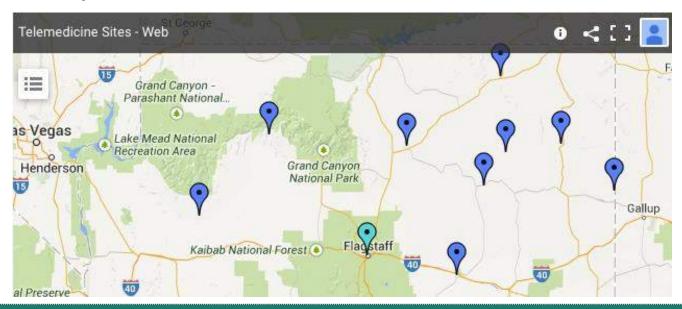








# Flagstaff Medical Center https://nahealth.com/telemedicine



#### Care Beyond Walls and Wires: In-home monitoring

Using remote monitoring tools, this program is designed to improve the quality of life for people with chronic health conditions, helping patients and families get the care they need without leaving home.

With daily access to information including blood pressure, weight and symptoms of illness, care teams and patients can co-manage treatment plans. It's also possible to detect changes in a patient's health status early on and intervene at the right time to avoid unnecessary travel and hospital care.





## "Care Beyond Walls and Wires": In-Home Monitoring YouTube Videos @www.youtube.com

- https://www.youtube.com/watch?v=qHXGRDtdjuc
   Four Corners Navajo Area
- https://www.youtube.com/watch?v= 4wvQbK EPM
   Winslow, AZ





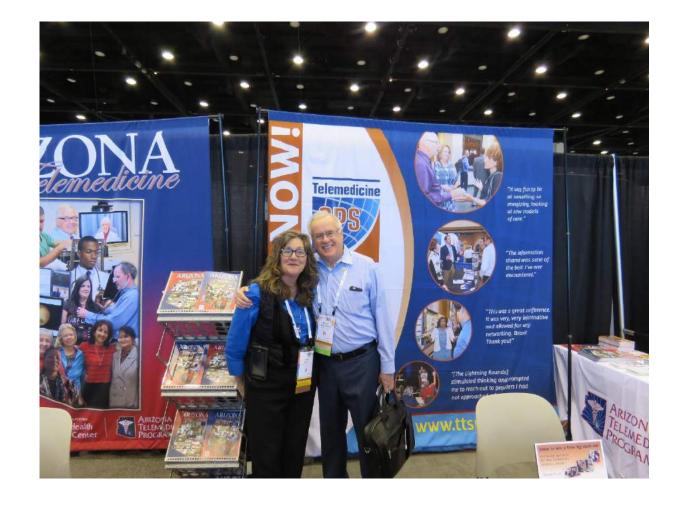
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