

**ARIZONA
TELEMEDICINE
PROGRAM**



Arizona Telemedicine Program

How to put the Tele into Telehealth

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Associate Director for Education & Facilities

Arizona Telemedicine Program

Southwest Telehealth Resource Center

Distance Learning Outreach

University of Arizona Health Sciences Center

Board Member – Telehealth USDLA

www.telehealthresourcecenter.org

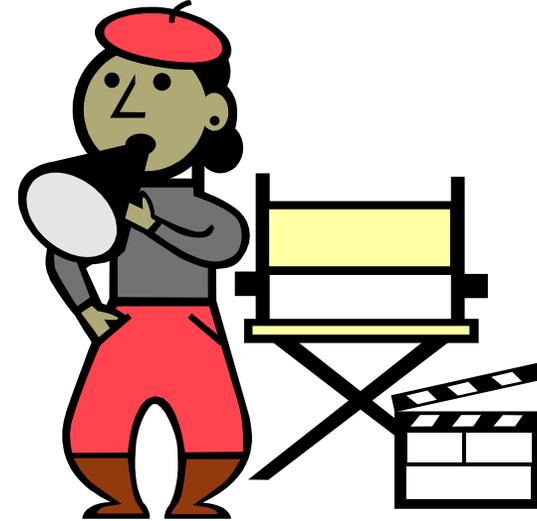


A scenic view of the Grand Canyon, showing layered rock formations and a deep valley. The sky is blue with scattered white clouds. The foreground is framed by dark green pine trees on the left and right. The word "Telepresenting" is overlaid in the center in a bold, blue, sans-serif font.

Telepresenting

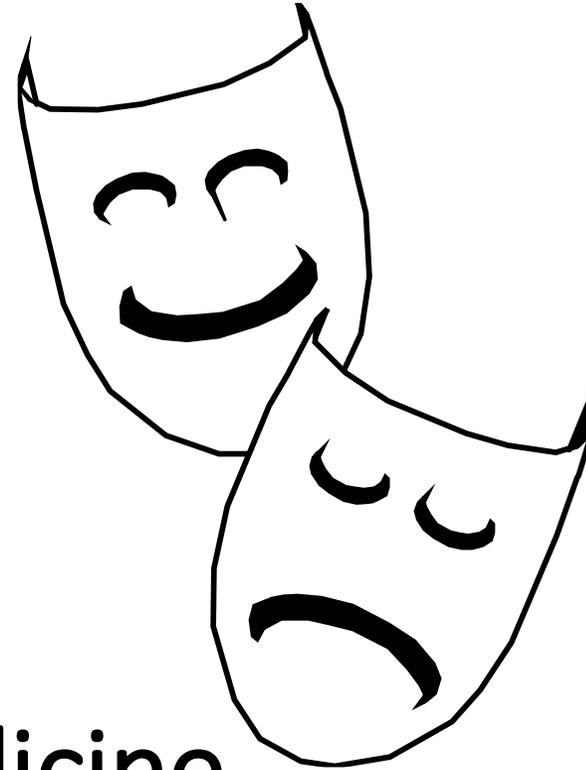
Technology
+
Telecommunications
=
Telehealth/Telemedicine

Communication Technology



- **Lights, Camera ACTION!**
- **Two way videoconferencing**
Using hardware/software
- **Web cams using secure sites over the internet**
- **Other devices or programs which connect to your laptop or desktop @home or bedside**

The Art of Telemedicine



Telemedicine = 

Elements of Production

- Sound
 - microphones
 - electronic stethoscope
- Lighting
 - color temperature
 - angle
- Space and geography of the room

- Same Elements of production whether you are in a state-of-the-art videoconferencing suite, using a videophone or a webcam @ your desktop!
- Background
- Lighting
- Audio
- Camera skills – be sure you are looking GOOD!



- **Bandwidth and managing your bandwidth**
- **Back-up plan**
- **Old/new technology combinations**
- **Data Access & Management**
- **Test in advance - and the day of – and repeat!**

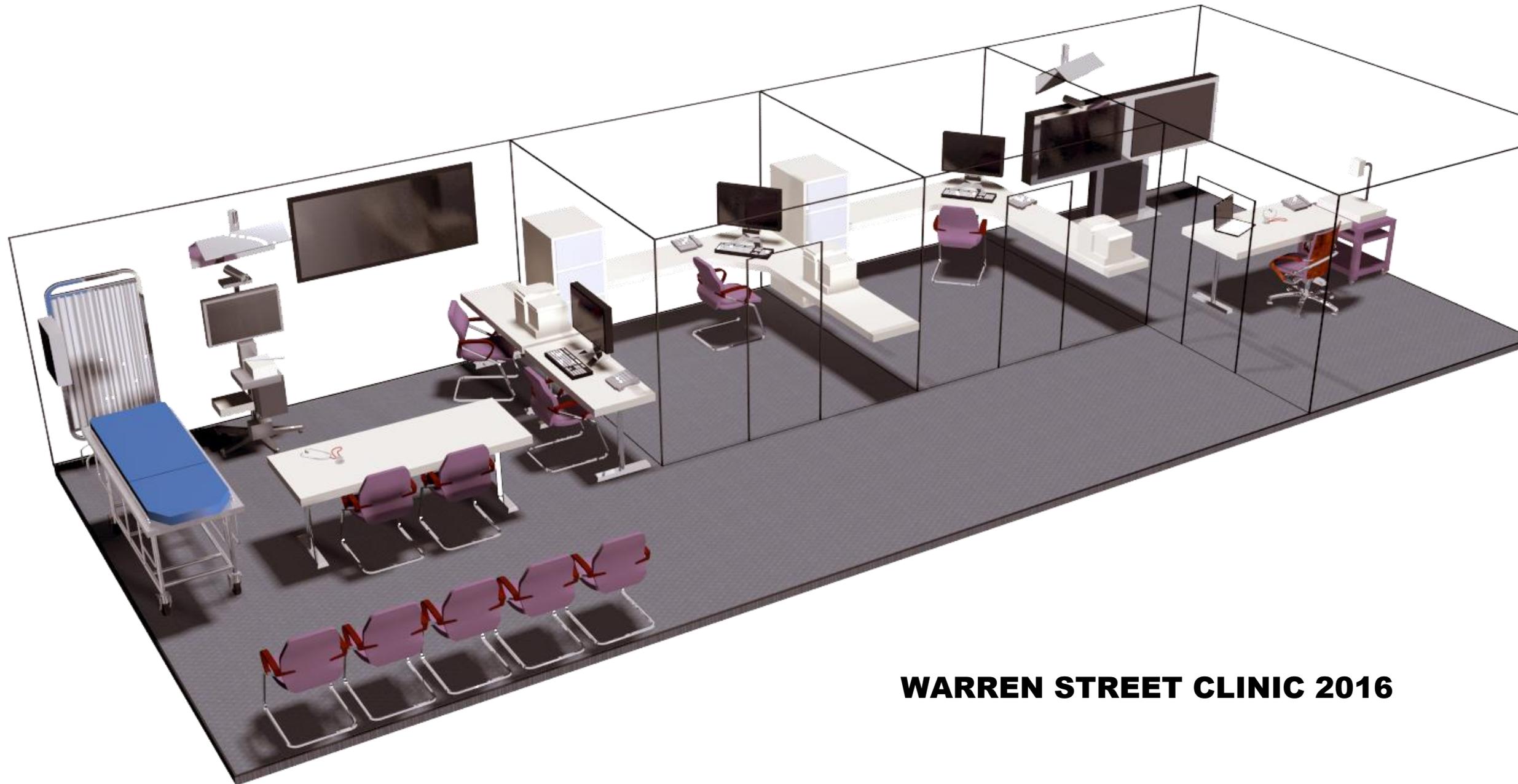
Best Practices

- **Technical Protocols**
- **Clinical Protocols**
- **Mock Patients**
- **Training**

Cameras

- Angle
- Framing
- Lighting
- White balance
- Choosing the right one
- Focus on communication and
NOT the technology





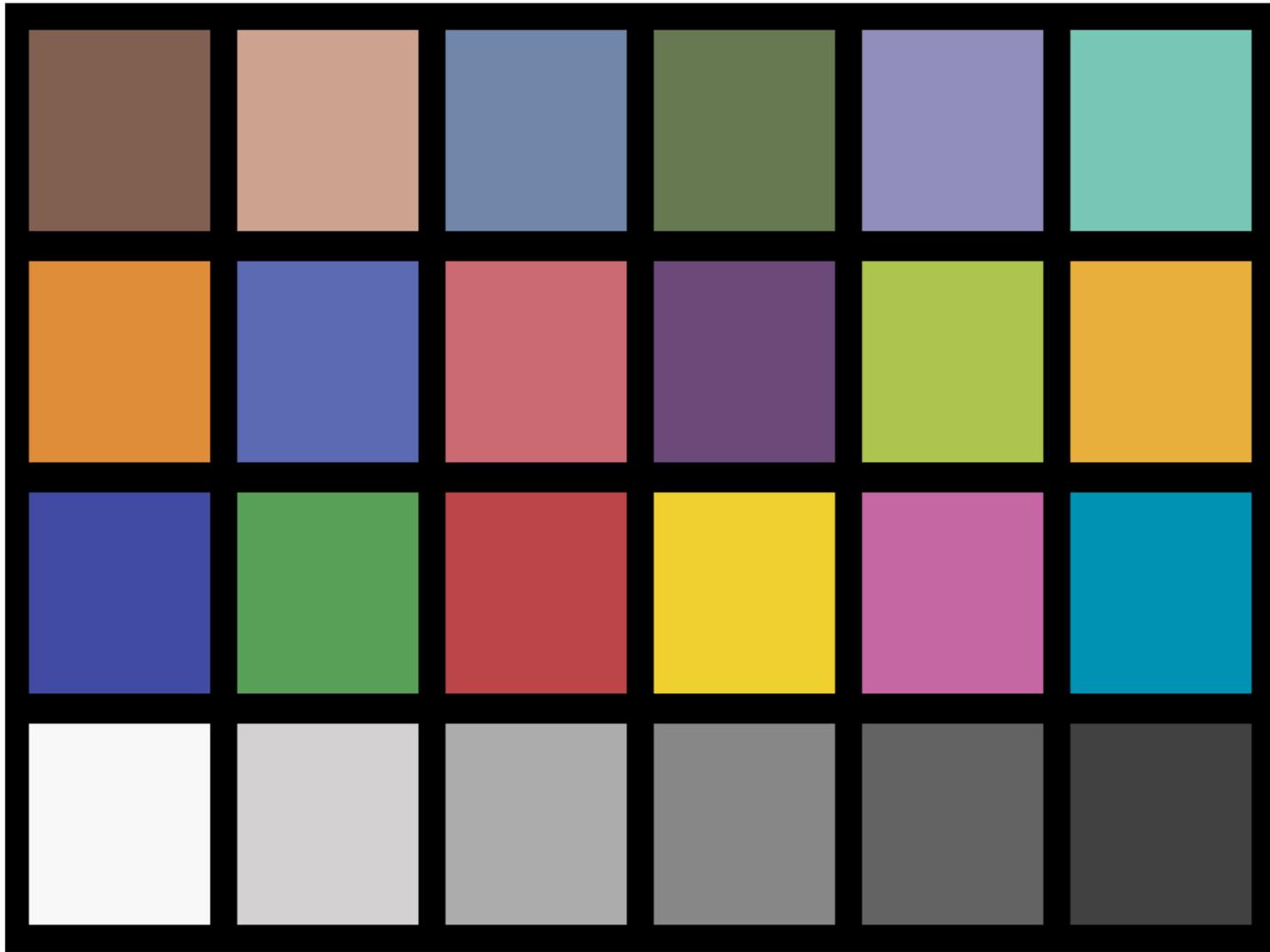
WARREN STREET CLINIC 2016

ARIZONA
TELEMEDICINE
PROGRAM



telemedicine
=
medicine at a distance













Vidyo

GoogleHangout

AdobeConnect

Skype
WebEx
Elluminate
RealPresence
Windows
ZOOM
LIVE
Bluejeans

WebEx

Elluminate

RealPresence

Windows

ZOOM

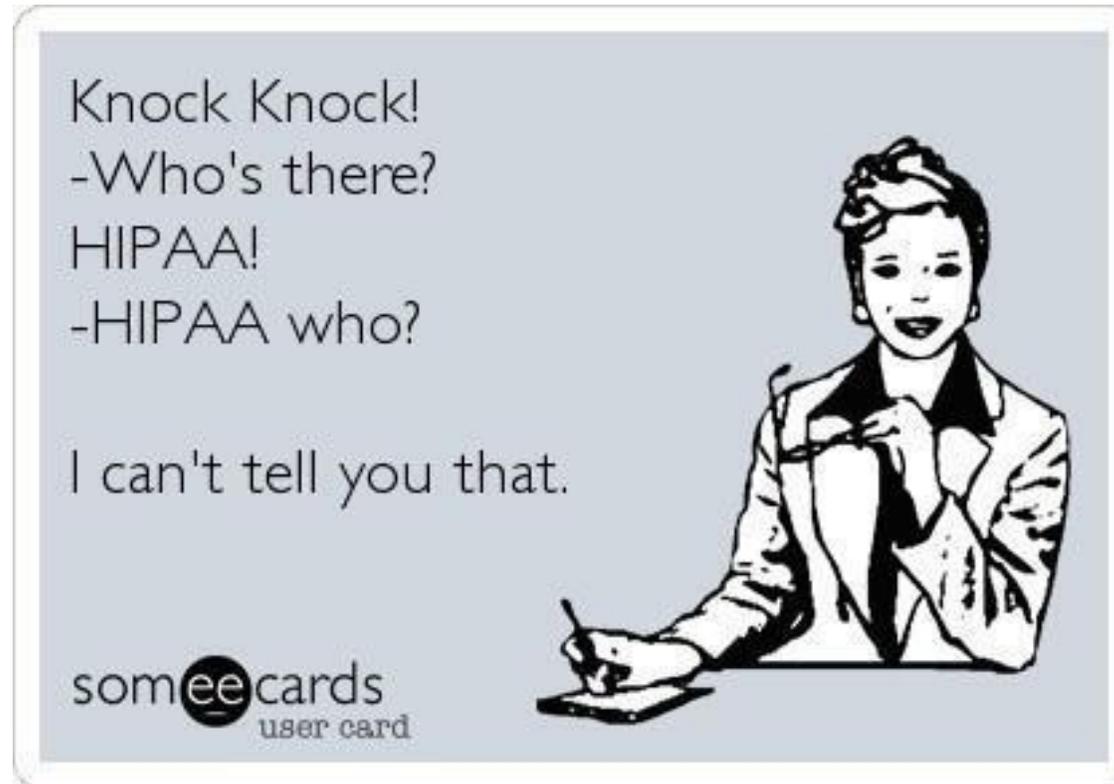
LIVE

Bluejeans

GoToMeeting

Blackboard

HIPAA Health Insurance Portability And Accountability Act of 1996





Telepresence 2007



zoom

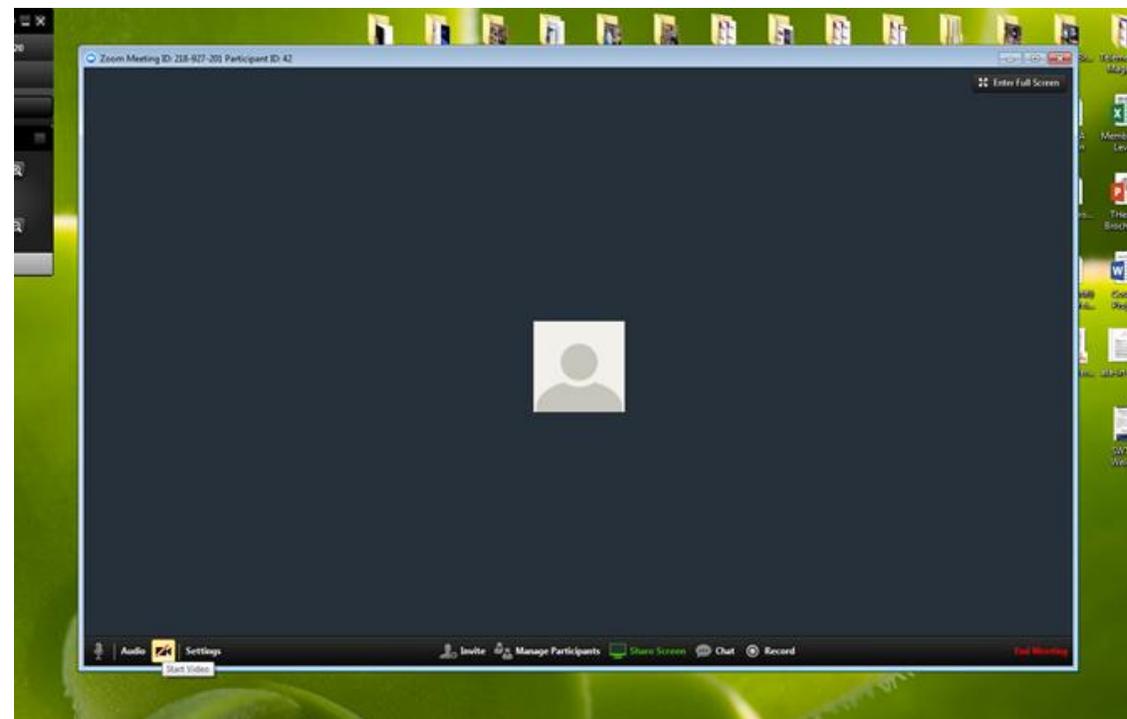
- Mute your audio
- View
 - Speaker mode
 - Gallery mode
 - Full Screen

Mute / unmute your microphones



MUTE = ALT A

Mute / unmute your video



MUTE = ALT V

Speaker View or Gallery View



http://www.telemedicine.arizona.edu/about-us/atc

Arizona Telemedicine Cou... x

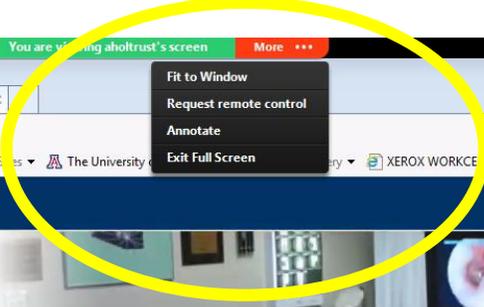
Google Search Share More >>

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THE UNIVERSITY OF ARIZONA®

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Sign In

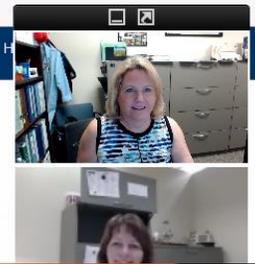
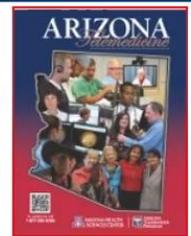


Fit to Window

Request remote control

Annotate

Exit Full Screen



You are viewing aholtrus's screen More ...

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Hot Links

- Service Provider Directory
- ATP Service Desk
- Telemedicine Training
- Arizona Telemedicine Council
- Innovation Awards Program
- Press Releases
- Tele-Diabetes Programs
- Arizona Telemedicine Testimonials
- Frequently Asked Questions
- Contact Us

Arizona Telemedi

The Arizona Telemedicine Cou...
[Arizona State Legislature](#). The...
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 chairman of the Council which

Fit to Window

Request remote control

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uggested Sites The University XEROX

Connect With Us

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Telemedicine Telehealth Service Provider Showcase

Webinars and Events

- Senator Kelli Ward
- Agency Members**
- Bureau of Emergency Medical Services - Ben Bobrow, MD
 - United Healthcare - Donald A. Graf
 - Arizona Department of Education - Bruce Groll
 - Arizona Lottery - Jeff Hatch-Miller
 - Arizona Department of Health Services - Will Humble, MPH
 - Phoenix Indian Medical Center - John Molina, MD
 - Arizona Strategic Enterprise Technology (ASET) - Galen Updike
- Public Members**
- Global Med- Joel E. Barthelemy, President and CEO
 - Northern Arizona Healthcare - Mark Carroll, MD
 - Northern Arizona Area Health Education Center (NAHEC) - Sean Clendaniel



Teleconferencing Tips

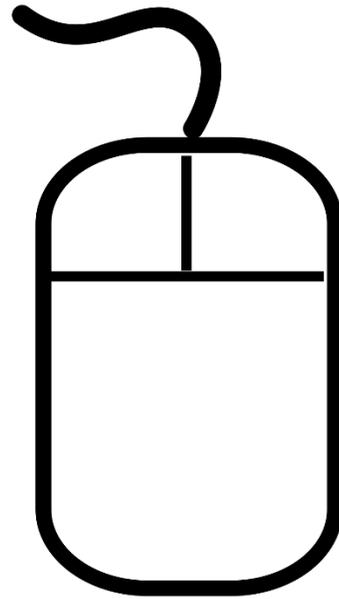
- wear appropriate clothing and jewelry
- be aware of your body language
- use an agenda and facilitate introductions
- develop protocols for questions
- be familiar with the equipment
- test all equipment in advance

Educational Materials

- send in advance whenever possible
- suggest powerpoint from a computer
- use 24 point font or greater
- use fonts like Arial or Times New Roman
- use a medium blue background with white or yellow font (high contrast)
- use a document camera for 3-D objects
- don't use red



Remote control = mouse!



Be Interactive

- Journal Club
- Pass the Laserpointer
- EKG Bingo
- Team Competition
- Small Group Discussions
- Use photos, nametags or a namelist
- Use Multi-point and PIP options
- don't be just another talking head

microphones

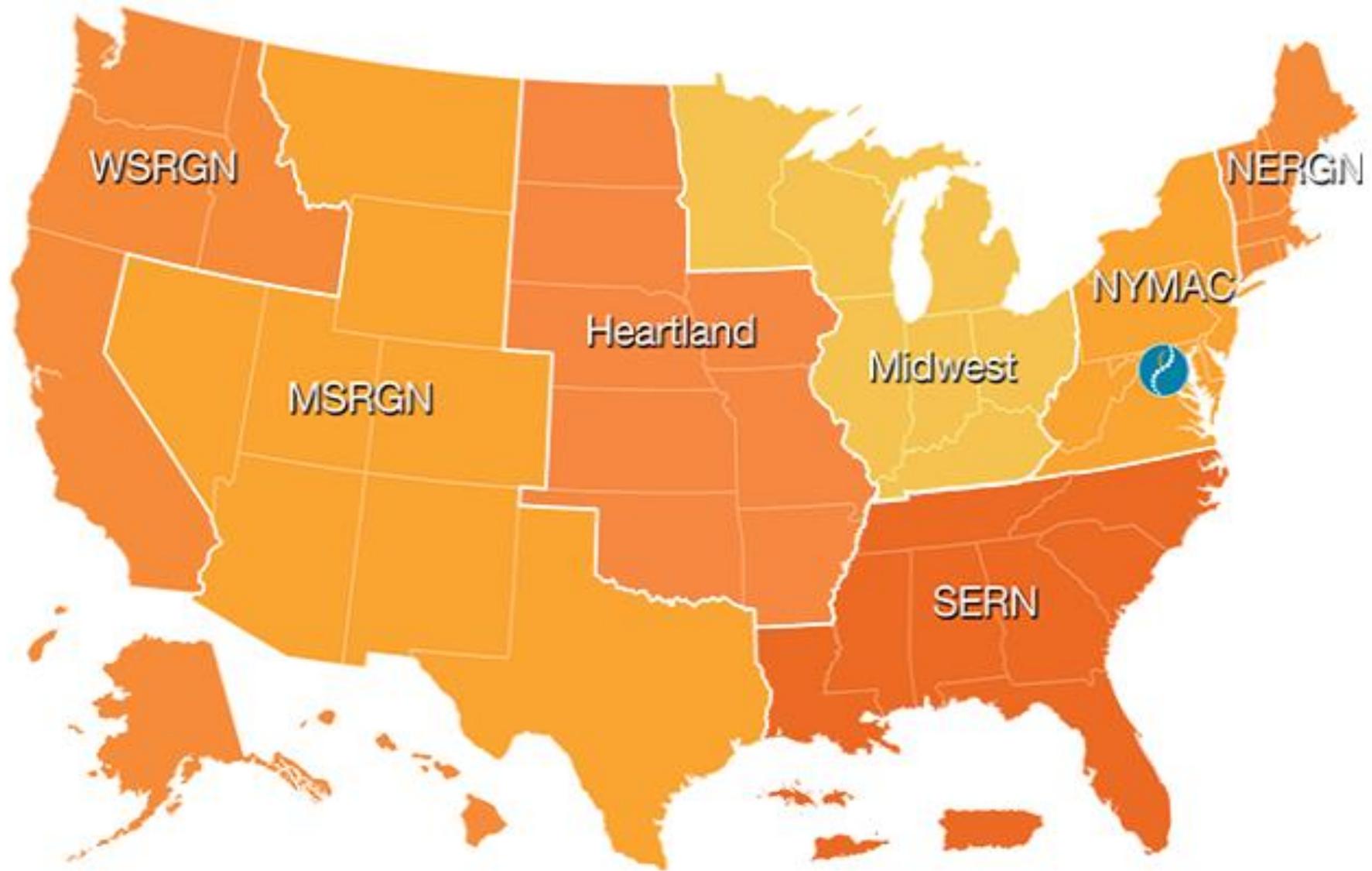
- Require the ability to easily to turn on/off
- Laptop mics and cameras can be adequate but you absolutely have to be able to control on/off quickly
- Echo cancellation is necessary for two-way communication
- Multi-Point events need testing and practice
- Just one open microphone can make or break the conversation or crash a good time!



GENETICS

This is how it works.

fakeposters.com



Curriculum

- Hybrid Certificate Course
- Online Learning Modules with a post-test before 1 day onsite training
- Meet with colleagues onsite for a one or two day course that includes an agenda and hands-on real life scenarios
- All counselors rotate thru the interactive videoconference role playing experience and participate as a counsellor as well as a patient with challenging scripts
- A National network of TeleGenetic Counsellors is being built as a product of this collaborative effort
- Genetic Counselors often deliver very BAD news!

Clinical Case Presentation



SOUTHWEST TRC TELEHEALTH RESOURCE CENTER™

Home About Us People Resources Online Education Events Partners Links Help Desk Blog

Our History. Our Mission

The Southwest Telehealth Resource Center received a federal grant (#G221T16262) to advance telemedicine services throughout the Southwest. It is one of the largest telemedicine Centers in the United States, each serving a distinct geographic region. SWTRC serves hospitals, clinics, public health offices, and other providers in the broader Southwest region.

The SWTRC assists start-up telehealth programs and serves as a resource for existing programs regarding changes in technology and other issues affecting telehealth in the Southwest region.

Telemedicine has been shown empirically to improve access to quality medical care for many patients living in rural and medically underserved areas. The SWTRC draws expertise from the internationally recognized [Arizona Telemedicine Program](#), which has been providing telemedicine services throughout the state of Arizona since 1996.

This website has been made possible by grant G22RH24279 from the Office for the Advancement of Telehealth, Federal Office of Rural Health Policy, Health Resources and Services Administration, DHHS

Key Contacts

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SWTRC Services

- Full-Day Training Program
- Online Learning Modules
- Help Desk
- Technical Assistance
- Tools & Templates
- Program Development
- Business Models
- Evaluation
- Best Practices
- Clinical Operations
- Sustainability
- Equipment Recommendations
- Program Operations

Arabic
English
French
Mandarin
Navajo
Spanish

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SWTRC BLOG

SPS Telemedicine Telehealth Service Provider Specialist

Arizona Service Provider Telemedicine & Telehealth



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RESOURCE CENTER

The Telemedicine Referral Case Process

Phyllis Webster,
Program Coordinator, Sr.
Arizona Telemedicine Program

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Case Management

Go through the steps required to set up, carry out and complete a clinical telemedicine referral.

To be a good telepresenter – and a great telegenetic counselor you must be a good communicator.

- verbally
- non-verbally

SELFIES!





Technology



- Makes the world a smaller place
- Keeps people in their communities

Cultural Diversity = having different cultures respect each other's differences.

- Age
- Technology
- Language - ACA in Spanish, VIDA in Spanish, consent forms in Navajo, sign language and translations/interpreters
- Geography and Economy – sheep herders, copper miners who need healthcare when and where it's convenient
- FOOD – what's the best flour for making tortillas?
Using technology to maximize the work of Certified Diabetes Educators OR Genetic Counselors in your state!

Hands-on!



Technology



- Makes the world a smaller place
- Keeps people in their communities



Patient

Provider

Interpreter



How to Find a Certified Genetic Counselor

<https://www.nsgc.org/findageneticcounselor>

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Find a Genetic Counselor

This directory has been developed to assist physicians, patients and genetic counselors in accessing genetic counseling services.

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[SEARCH TIPS](#)

[MEET BY PHONE](#)

[MEET IN PERSON](#)

[ABOUT GENETIC COUNSELORS](#)

[PATIENT RESOURCE SITE](#)

[MEMBER DIRECTORY](#)

In Person - Find a Genetic Counselor

Search Tips:

- The "First Name" and "Last Name" fields should only be used if you know the name of the genetic counselor you are looking to contact.
- If you do not return any results within your zip code, try searching just by state.
- Students interested in contacting a genetic counselor about the profession should check the "Student Contact Welcome" box.

Disclaimer of Warranties and Liabilities

Clear Search Filters

Search For: Any criteria Exact criteria

State/Province:

Postal Code: Within:

Institution/Organization:

Genetic Counselor First Name (optional):

Genetic Counselor Last Name (optional):

Types of Specialization:

<Any>
None
Adult (Including Complex Disease)
ART/Preimplantation Genetic Disorder

How to Find a Telegenetics Counselor



Welcome to the Telemedicine & Telehealth Service Provider Directory, a service of the Arizona Telemedicine Program. The directory is a resource for hospital and healthcare administrators and other decision-makers who want to expand or improve their healthcare services to their patients, employees, clients, etc. The directory lists companies providing medical specialty services (such as radiology, rheumatology, neurology, psychiatry) and ancillary services (such as patient education and language interpretation) through telemedicine to healthcare providers such as hospitals, clinics, nursing homes, private practices and urgent care centers.

Service Providers: [List your company here.](#)

Search the Directory

Company Name (or part of)

Services In Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware	Tele-services Endocrinology Epilepsy Emergency medicine Gastroenterology Genetics/genetic counseling Geriatrics Gynecology Hematology	Customers Accountable Care Organizations Assisted living facilities Community mental health clinics Correctional facilities Educational institutions Employers FQHCs Government agencies	Ancillary Services Continuing education Continuing medical education Distance education Health call center Language interpretation services Patient education Patient engagement Support groups
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Items per page
20

134 record(s) found, scroll down to see results. Page 1 of 7 page(s); up to 20 displayed per page.

<https://telemedicine.arizona.edu/servicedirectory>

Search the Directory

Company Name (or part of)

Services In	Tele-services	Customers	Ancillary Services
Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware	Addiction Allergy Audiology Autism Bariatric medicine Burn Cardiology Chronic disease management	Accountable Care Organizations Assisted living facilities Community mental health clinics Correctional facilities Educational institutions Employers FQHCs Government agencies	Continuing education Continuing medical education Distance education Health call center Language interpretation services Patient education Patient engagement Support groups

Items per page
20

5 record(s) found, scroll down to see results. Page 1 of 1 page(s); up to 20 displayed per page.



ARIZONA TELEMEDICINE PROGRAM



Thanks, Merci, Gracias y CIAO!
jmajor@telemedicine.arizona.edu