

Preparation in Professional Careers Based on Anytime/Anywhere Technologies

How Technology has Changed the Professions of Audiology and Speech-Language Pathology

Dean Robert Augustine

Augmentative & Alternative Communication

*"Personal achievement in life is a
function of the ability to
communicate."*

Trina Becker, MS, CCC-SLP

What is AAC?

- Refers to ways other than speech that are used to send a message from one person to another
- Includes:
 - Gestures
 - sign language
 - facial expressions
 - picture symbol or alphabet boards
 - sophisticated computer systems

Who uses AAC?

- Anyone who has significant difficulty using speech to communicate
- Used by people of all ages and disabilities
- Etiology either acquired or congenital



Benefits of AAC

- Provides an individual a means to communicate
- Facilitates learning
- Improves receptive language
- Facilitates speech
- Improves self-concept
- Reduces frustration and behaviors
- Increases participation

Technology

- [Then and now](#)

[No tech](#)

Low tech

Mid tech

High tech

Low Tech Systems



Mid Tech Systems



High Tech Devices

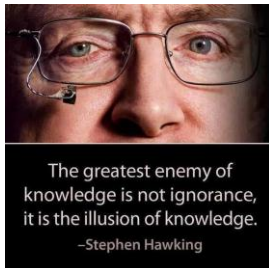


Eye Gaze Technology



Other Access Methods

- [Stephen Hawking](#)



Communication Apps for iPad



AAC technology allows individuals with severe communication an opportunity to communicate and participate in the world.

Technological Advances in Audiology

Tena L McNamara, AuD, CCC-A/SLP

Diagnostic Equipment



<http://www.otometrics.com/hearing-assessment/Audiometers/clinical-audiometer-madsen-astera-2>



- Immittance Bridge



Video
Otoscope



<http://www.jedmed.com/products/all-in-one-video-otoscopy>



Otoacoustic
Emissions



Auditory Brainstem Response



Amplification

Behind-the-Ear (BTE)
 Receiver-in-Canal (RIC)
 Receiver-in-Canal Power Solution
 In-the-Ear (ITE)
 Completely-in-Canal (CIC)

YES REALLY!

Colors

Cochlear Implants

Now that's something to smile about!

- <http://www.youtube.com/watch?v=Zm8w88kzZ1>

Technology used Across the Profession and in Distance Education

Rebecca Throneburg, PhD, CCC-SLP

Web-Conferencing Software- Distance Treatment

- Web-conferencing software is being used for speech therapy at a distance
 - Specialized evaluations
 - Treatment in remote settings or for home-bound individuals
- Digital medical records and files

Digital Records and Recording of Clinic Sessions

- Past- Paper files and notes
 - Current technology- On-Base access for Client files
 - Current technology- Xythos/Pantherfile – secure sharing of drafts of reports, weekly plans and notes
- Past- Record sessions on video-tape
 - Digital recording with digital cameras, ISR system
 - Watch live and recordings from laptops in CDS building

Distance Education Program Comparable to Residential

- Interactive with professor and other students in cohort; not isolated independent learning;
- Traditional program classes recorded; streamed for online viewing
- Blackboard Collaborate allows 'live' chat with instructor and each other, including opportunity for break-out rooms rather than full group



Recording of Traditional Courses

- Digital classroom recording and streaming
 - Pilot year with Panapto recording unsuccessful
 - Paragon Development Systems (PDS) with Intelligent Stream Recorder (ISR). IP digital camera with zoom
 - .wmv files streamed using departmental server. Links embedded in D2L. Other options YouTube, Caltura
 - Course materials scanned/streamed and available in D2L



Blackboard Collaborate for Synchronous Distance Classes and Office Hours

- Virtual on-line classroom
 - Whiteboard
 - Microphones/Web cams
 - Chat/polling functions
 - Desktop sharing and cursor control with remote computers
 - Breakout rooms

