


Thinking Beyond K-12: AAC Use in Post-Secondary Studies and the Argument for Universal Design for Learning (UDL)

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Who Am I?

- Clinical Instructor at Temple University in Communication Sciences and Disorders
- Speech language pathologist
- Doctoral candidate in higher education
- Mother of a young adult with autism
- Bird watcher



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Speaker Disclosure

- **Kathryn Helland** is a clinical instructor at Temple University. As such, the CSD department is paying for her attendance at this conference.
- Kathryn is also a member of the Assistive Technologies Outcomes and Benefits (ATOB) editorial board. She does not receive financial compensation for this activity.

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Learning Outcomes

- Attendees will be able to:
 - Identify three ways in which high tech AAC may interface with university learning management systems (LMSs).
 - Describe three barriers to successful entrance to college for AAC users.
 - Attendees will be able to discuss three ways in which the implementation of Universal Design for Learning (UDL) in higher education may increase equity for AAC users in higher education

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Why Consider Accommodations for AAC Users?

- We can extrapolate that roughly 30,000 students in higher education have communication deficits
 - How many could or do benefit from the use of AAC?
- Yet, the ADA and accommodations work best (but not great) for those in the "Goldilocks Zone" of disabilities (Areheart 2008)
- Can we change the law?
- What if there is another way?
 - UDL and it's application in Higher Education

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The history of American Higher Education

- Education for the masses?
- At first, higher education was the domain of colonials with power – mostly white men with property
- Black and Indigenous bodies were tools, and once disabled seen as "damaged goods"
- The Morrill Act of 1862 began to change the American landscape to benefit settlers (and the subsequent Hatch Act)
- Land grant universities helped to reshape the frontier for the extraction of wealth

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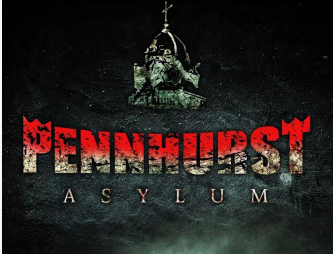
The Early Twentieth Century

- Eugenics and the disappearance of the imperfect
- Creation of state institutions for the disabled
- The advent of rehabilitative medicine following the World Wars
- The growth of the medical model of disability – something to be fixed



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Disability is “Scary” ATiA 2024 CONFERENCE




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The GI Bill and Disabled College Students

Participation in higher education to promote self sufficiency

- Returning soldiers could receive funding to study
- Often pushback by faculty (“They’re upsetting the other students”)
- Some had an easier time accessing funds than others (Woods II, 1998).
 - Black, brown, and indigenous vets were often shut out



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Access Denied

A LACK OF ACCESS HAS IMPLICATIONS THAT GO FAR BEYOND THE MOMENT THAT ACCESS IS DENIED.

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Denial of Access

For the past 75+ years, completion of a higher education degree has meant

- Higher lifetime earnings
- Better health outcomes
- More social capital (Zumeta et al., 2012)

College does not have to be the only path, but denial of access can close the door on human potential

This reinforces the binary between the haves and have nots and between the norm-centered ideal of the acceptable college student and the disables



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Things Are Better Than They Were.....

Laws leading to greater rights, access to AT, and deinstitutionalization

- The Rehabilitation Act of 1973 – leads to changes in work, housing, and transportation (Pacer Center, 2015)
- Education for All Handicapped Children Act – 1975 (now IDEA) - leads rights in public education
- The AT Act – originally passed in 1988
- Americans with Disabilities Act – 1990 – Leads to rights in access to public spaces, telecommunication services, employment, access to assistive technology, and rights in higher education
- Olmstead Decision – 1999 – Segregation of people with disabilities is a form of unlawful discrimination under the ADA (Cheeseman, 2015)
 - In the mid '70s, more than 170,000 Americans resided in state run institutions
 - HCBS led to the creation of waiver programs – these “waive” the need for \$ to go to state institutions


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The ADA

Helped establish a system of "accommodations" for students with disabilities, however....

- The student must disclose their disability to receive formal accommodations
- Some faculty and staff maintain negative attitudes about accommodations
 - Many students with invisible disabilities fail to disclose until they are in too deep academically

(Aquino and Bittinger 2019)




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The ADA and the Medical Model

The system of accommodations is more about fitting in than standing out

- The system of accommodations maintains an "us versus them" binary
- Assistive technology covered by the Rehab Act and ADA does not include highly personalized AT, such as AAC
- Few universities provide supports for AAC users that go beyond what is mandated by law



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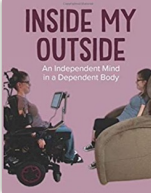
Exceptions Prove the rule

Some universities provide college programs with additional supports

Temple University – Leadership and Career Studies is one such example for students with ID/DD

Wright State University has long sought grant money to provide a personal care center for students with complex bodies

- Students may fulfill work study by providing supports to disabled students on campus
- Please read Sara Pyszka's wonderful book, "Inside my Outside:




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What Do AAC Users Want to Achieve?

The same things any of us do:

- Pursue a passion
- Gain professional credentials
- Achieve career goals
- Socialize with peers
- What else comes to mind?



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What Barriers Do They Experience?

Misperceptions of competence

- The professor talks to the aide and not the student
- The professor might assume the aide is doing the actual work
- 'You can't have a notetaker because the class is on Zoom.'
- Being spoken about in the third person...in front of the rest of the class
 - "Karen, do you mind working with _____ since they are an AAC user?"
 - Imagine the same thing being said about someone who is Black, Latinx, a woman.....

These anecdotes are real and have been related to me by AAC users.

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We need to consider ways to increase access, equity, and potentially even inclusion, for folks who use AAC in higher education.

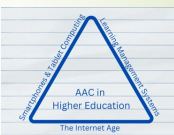
System-wide change is needed, but how do we do this with the tools we have already?

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How is it Possible to Achieve Greater Equity?

Consider changes in consumer electronics




- The Internet Age
 - The advent of smart phones and tablet computing
 - The development of AAC apps
 - Devices (and certain apps) may be available to some through IDDP
- The early adopters of iPads with AAC apps are growing up!
- Increased reliance on the use of distance learning and learning management systems (LMS)
- Increasing device/system interconnectivity
 - Apps and plugins




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The Role of Universal Design for Learning (UDL)

Universal Design for Learning Guidelines

<p>Provide multiple means of Engagement →</p> <p>Affective Networks The "WHY" of learning</p> 	<p>Provide multiple means of Representation →</p> <p>Recognition Networks The "WHAT" of learning</p> 	<p>Provide multiple means of Action & Expression →</p> <p>Strategic Networks The "HOW" of learning</p> 
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QR Code for CAST

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How do we do UDL with the Tools We Have?

Options include but are not limited to:

- Asynchronous and/or Hybrid Access
 - The use of Chat on Zoom to participate in course discussion
 - FaceTime with Personal Voice for group work
 - Canva presentations with voice only or with presenter window
 - Coediting of documents within Teams or Google Docs
 - Provide feedback through Google Keep or Plicker
 - Poll Everywhere
- In-person without a slide deck? Open a placeholder PowerPoint slide on the screen with captioning enabled.



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Telecommunication

- Wireless
 - cell phones
 - iPads/Tablets
 - Communication can happen over Wifi or a cell plan
- TDDP – people with disabilities that make communication difficult may be eligible for a free smartphone or tablet
- Go to AT3center.org to find your state
- In some cases, AAC apps may be provided through an 'exceptions process'



A cartoon showing two rabbits. One rabbit is holding a cell phone and says, "IT'S AN OLD PHONE." The other rabbit asks, "WHAT'S THAT?" and the first rabbit replies, "WELL, HOW DOES IT TAKE MY TALKS?"

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The world of apps:



- Apps for higher education
 - iStudiez Pro
- Apps for organization
 - Wunderlist
- Apps for text to speech
 - Voice Dream Reader
- Apps for social interaction
 - Facebook
- Apps for accessibility
 - Seeing AI

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24 GPS: Using apps to support navigation

- Walking Directions
- Google Maps
 - Adding indoors navigation for airports and malls
- Wheelmate
 - Find accessible bathrooms and parking
- Apple Maps
 - Navigation on Apple Watch, including tactile/auditory cues



A photograph of a smartphone mounted on a car's dashboard using a suction cup. The phone screen displays a navigation map.

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25 Reminders

- "Hey Siri"
- Single event, or repeat reminders
- Geofencing (Siri reminds you when you get to a location)



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Reminders Continued



- Aida Reminders - Voice Memos (Drove my son crazy!)
- Pill Reminder
- Todoist
- Wunderlist
- Microsoft To Do

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Assistive listening with Apple Air Pods

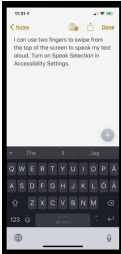
- Use Accessibility settings to turn your air pods into an assistive listening tool.
- Place your iPhone near the speaker
- Filters out background noise



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28 Accessibility Features: Turn your iPhone into instant text to speech


- General → Accessibility → Vision → Speech → Speak Selection
- Use Notes app to type your message
- Swipe down with two fingers from the top of your screen
- When you run out of spoons!
- <https://butyoudontlookick.com/articles/written-by-christine/the-spoon-theory/>



Tech4Mapping 5/21/24

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Notetaking




- Dictation
- Built in microphone button for Apple keyboard
- Google AI seems to be better at understanding people with impaired intelligibility

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30 Apps for notetaking

- Notability (text, draw, voice memo)
- Evernote
- Microsoft OneNote
- ZoomNotes
- Google Keep
- Dragon
- Sonocent App
 - Pairs with desktop software
 - Great for secondary education




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Canvas

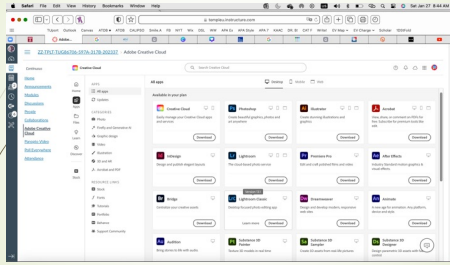
Don't forget to make learning materials accessible:

- Alternative text for images
- Audio description of videos
- Captioning of spoken content
- Make accessible transcripts available
- Post recordings on Canvas
- Use the collaborations tool for group note taking
- Panopto allows you to bookmark and search content within a recording
- Many learners benefit from repetition
 - Visual and auditory input



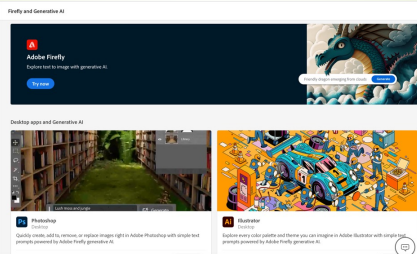
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The Adobe Creative Cloud



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Firefly and Photoshop



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UDL at McGill University




Universal Design
at McGill

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People with Disabilities Have Lower Income Levels and Lower Levels of Employment

- Consider that students may come from first gen or other marginalized backgrounds
- Do not assume family wealth
- Can you use Open Educational Resource?
- Assign books that are available digitally through the university library
- Are older materials available in an accessible format?
- YouTube videos




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The Right to Time

But Does Productivity = Self Worth....?

NO! Stop viewing time as *the* measure of academic potential and performance

- Asynchronous input allows everyone to share their thoughts
- Threaded Discussion Boards
- This is often how some AAC research is done
- Allows people provide input at their own pace




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The Gift of Time

Perhaps...provide extended time for test taking – without requiring a letter of accommodation

Let ALL students know that finishing *first* does not mean someone finishes best on the test.

- Flexibility in project topic choice and means of expression (presentation, video, podcast, blog post, performance...)




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Can AI Play a Role?

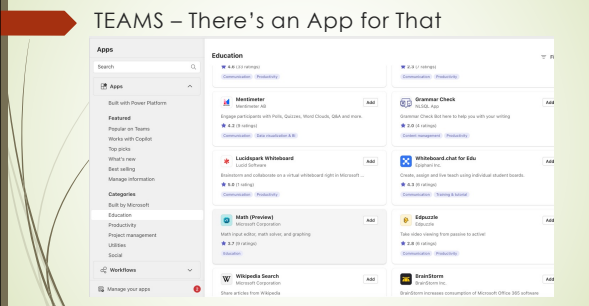
Students already use tools, such as Grammarly or Readable to correct writing projects

- Could AI support syntax and morphology for AAC users – and others?
- Could this play a role in making in the moment communication faster?



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TEAMS – There's an App for That



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