

Assistive Technology in the Workplace

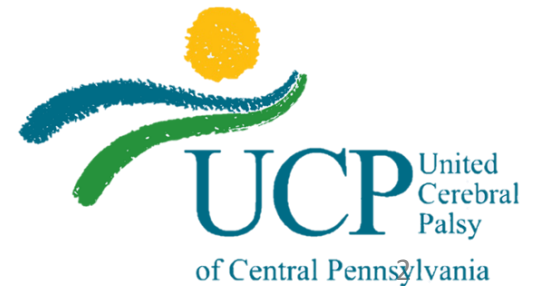


PRESENTERS

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OBJECTIVES

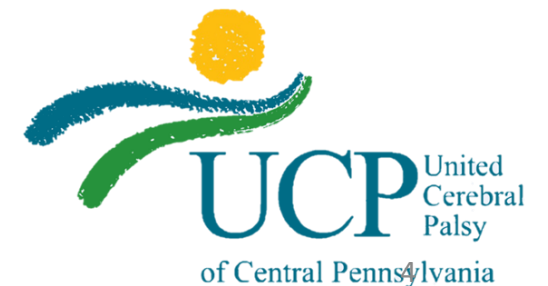
- Define disability in employment and assistive technology
- Review the key elements which lead to successful employment of individuals with a disability
- Review types of assistive technology which can be used for successful employment



BY THE NUMBERS – U.S.

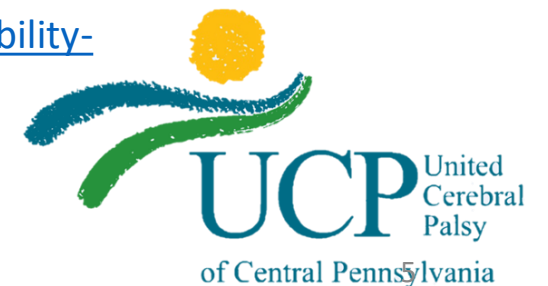
- 21.3 percent of individuals with a disability are employed
 - Half of the individuals with a disability are age 65 and over
 - 30 percent of individuals with a disability are employed part time
- Persons with a disability account for 12 percent of the civilian noninstitutional population or 42,485,034 people

Source: United States Census Bureau



BY THE NUMBERS - Pennsylvania

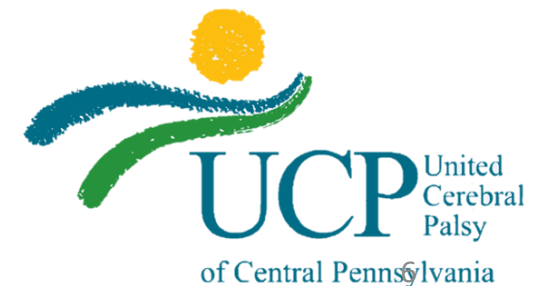
- According to the United States Census Bureau Decennial Census, PA total civilian noninstitutionalized population is 12,767,386
- 1,767,211 of those individuals have a disability
- As of March 31, 2022, 21.4 percent of individuals with disabilities participate in the PA Labor Force (Employment First-January 2023 Updates, Progress Report, and Future Framework)
- PA Employment First Act of 2018 <https://www.dli.pa.gov/Individuals/Disability-Services/employment-first/Pages/default.aspx>



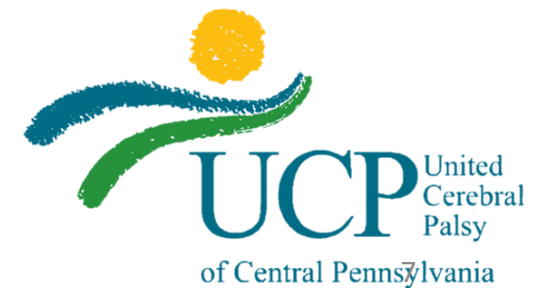
What is a DISABILITY?

- As defined by ADAAA – a person who has a physical or mental impairment that substantially limits one or more major life activities, who has a history or a record of such an impairment, or who is perceived by others as having such an impairment.
 - American with Disabilities Act of 1990 (ADA)
 - ADA Amendments Act of 2008 (ADAAA)

Source: U.S. Department of Labor



UNLOCKING POTENTIAL & OPPORTUNITIES



EMPLOYEE CHALLENGES – THE PERSON

Mobility or Access

Vision

Hearing

Cognitive (Thinking processes)

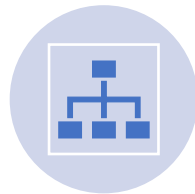
Communication



WORK EXPECTATIONS – JOB ELEMENTS



Location &
Space



Responsibilities
& Duties



Skills &
Competencies



Specific Tasks



Relationships &
Supervision

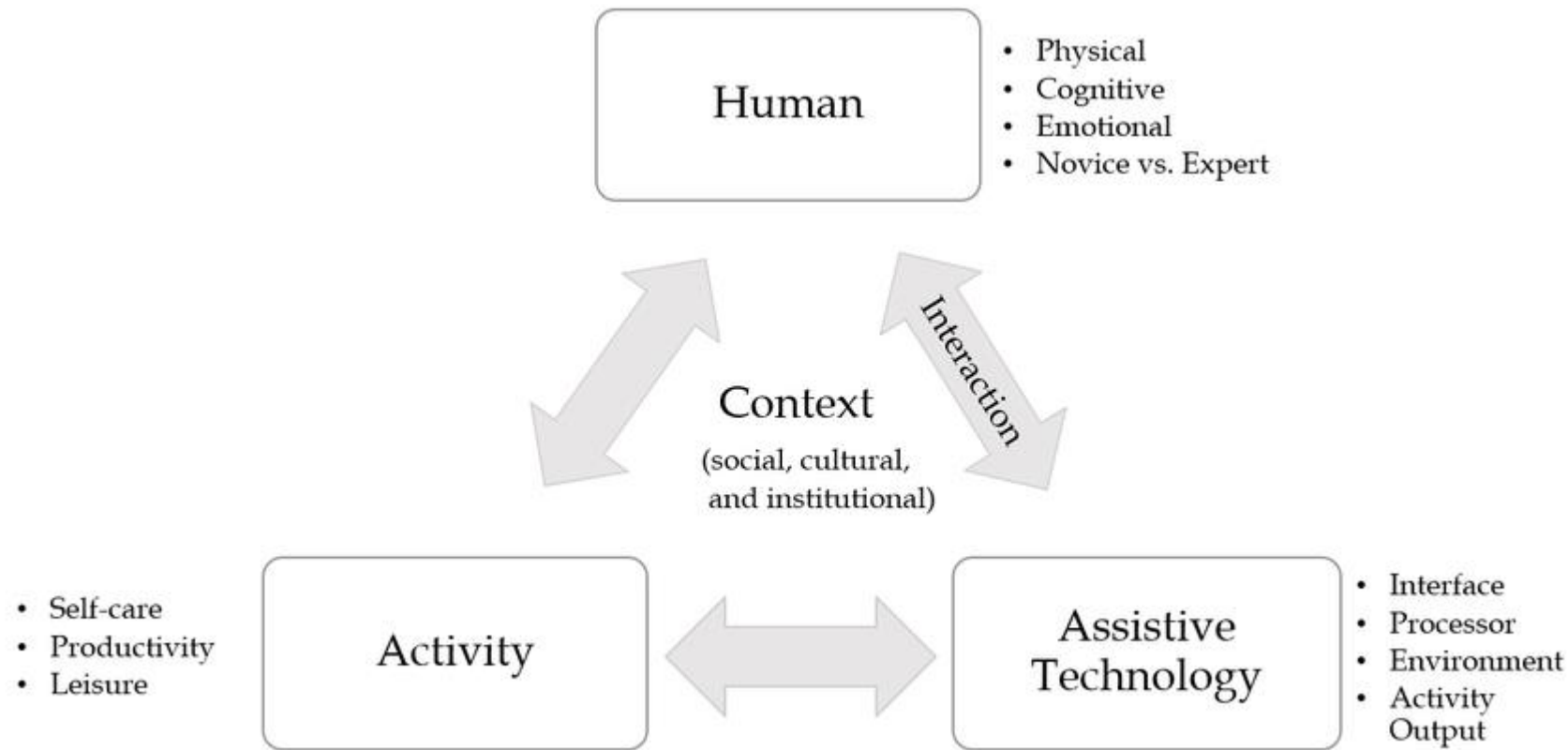
ASSISTIVE TECHNOLOGY – THE LINK

Assistive Technology (AT) is any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of persons with disabilities. – Tech Act 1988

AT Act (2004) – increased access to, availability of, and funding for assistive technology for all individuals with disabilities, including young children.



FINDING A SOLUTION – THE AT MATCH



Source: RESNA – HAAT model

ASSISTIVE TECHNOLOGY – What can it be?

- Low-tech: communication boards made of cardboard or file folders
- High-tech: special purpose computers
- Hardware: prosthetics, mounting systems, positioning devices
- Computer Hardware: special switches, keyboards, pointing devices
- Computer Software: screen readers, communication programs
- Inclusive or specialized learning materials
- And More – electronic devices, wheelchairs, and so much more.

Source: Assistive Technology Industry Association (ATIA)



MOBILITY & ACCESS

- Reachers, mounts, holders, and supports
- Modified workspace (desk height, seating)
- Voice activated devices or software
- Built-in accessibility features
- Alternative keyboard and/or mouse
- Pneumatic or electric alternatives
- Headset, Grips, Writing Tools
- Telepresence Robots



VISION

- Alternative lighting or size
- Screen readers and/or Screen magnifiers
- Color identifiers; High-contrast colors
- Voice Output Devices
- Tactile
- Voice Control and Dictation
- Applications:

Magnifying Glass + Flashlight
NowYouSee
KNFB Reader

Be My Eyes (iOS)
Path Guide (Android)
Seeing AI (Microsoft)



HEARING

- Listening Devices and/or Alerting Devices
- Captioning or CART (Computer Access Real-time Translation)
- Alternative phone with captioning, amplification, or hearing aid compatibility
- Video conferencing and relay services
- Mirrors
- Communication alternative or software
 - AVA (app): Transcribe Voice to Text
 - Dragon Naturally Speaking

COGNITIVE (Thinking Processes)

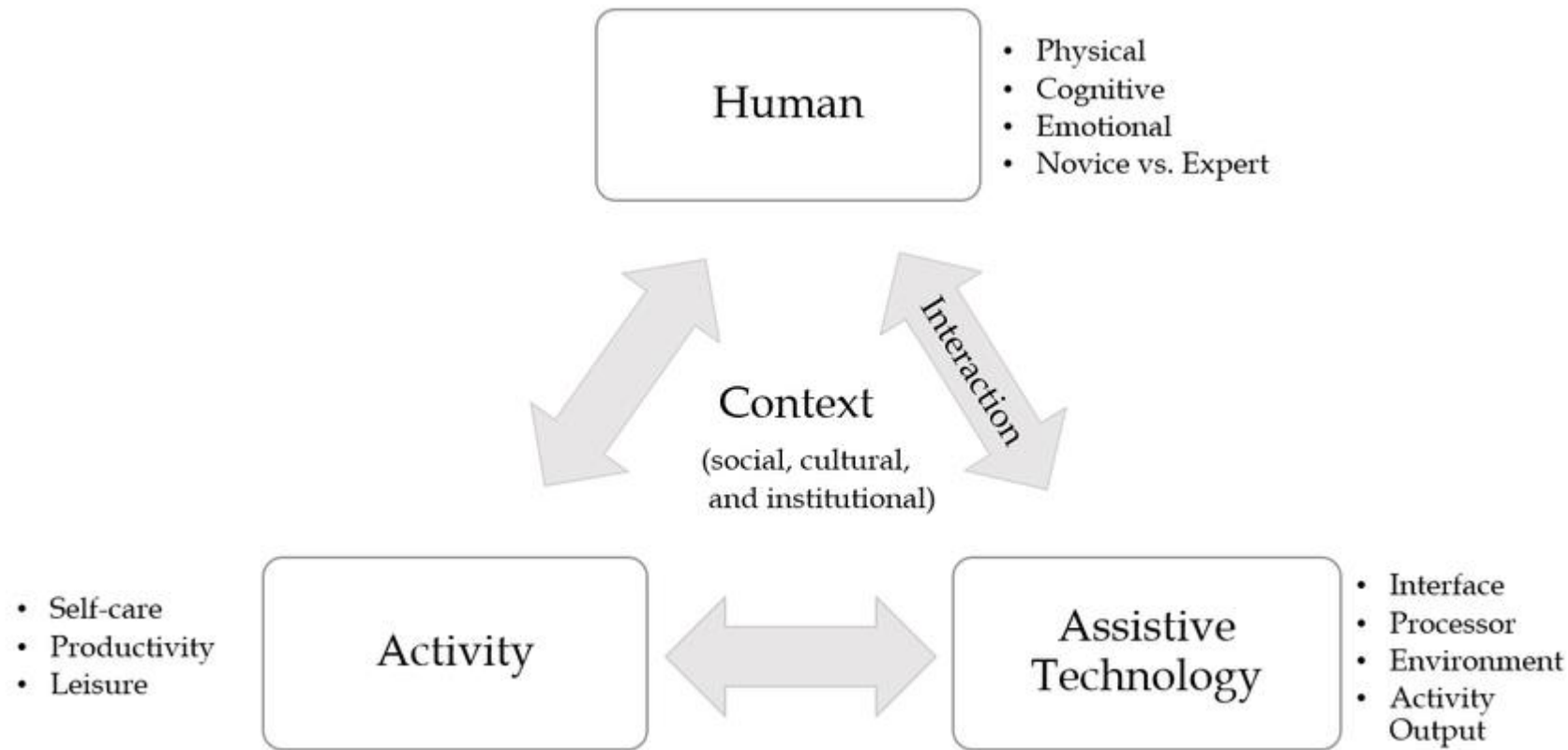
- Noise Canceling Headphones or Earbuds
- Task Management tools (checklists, apps)
- Time Management tools (checklists, apps, calendar/planner)
- Alarms & Reminders
- Modify presentation (written, visual)
- Software (speech recognition, writing/editing, word processing)
- Digital Voice Recorder
- Workspace modification

COMMUNICATION

- Alternative & Augmentative Communication (AAC) devices
- Messaging or Texting
- Voice Amplification
- Speech Generating Communication Devices
- Translators (apps)



FINDING A SOLUTION – THE AT MATCH



Source: RESNA – HAAT model

Scenario #1

Person: Sarah is a 58-year-old who recently suffered a stroke. She experiences some weakness on her left side, some difficulty with memory, and some changes in her vision and hearing. She has trouble with tasks which used to be part of her daily routine.

Job: Administrative Assistant who manages the contracts, vehicles, insurance, and communications for the fiscal department of the organization.

AT: ?

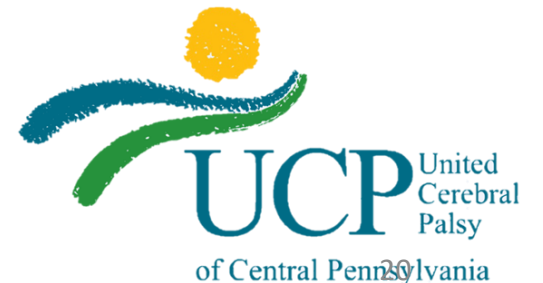


Scenario #2

Person: Harold is a 32-year-old with a diagnosis of Cerebral Palsy. His voice is very weak, and he is not able to speak loudly for long periods of time. He can use his hands to do some limited tasks, however he does not have a great deal of strength. He uses a power wheelchair to move around.

Job: Harold is the account lead at a financial firm.

AT: ?



Scenario #3

Person: Casper is 25-year-old man with Autism Spectrum Disorder who has difficulty reading and writing. He has difficulty in social situations at times and can easily get off task. He likes routines and consistency.

Job: Stock clerk at a discount store. He takes the bus to work or relies on public transportation.

AT: ?

RESOURCES – AT & EMPLOYMENT

- UCP Central PA – ucpcentralpa.org
 - Assistive Technology Services including Changing Hands, Assistive Technology Resource Center, and Independent Living Technology
- TechOWL (Technology for Our Whole Lives) – TechOWLpa.org
- Job Accomodation Network (JAN) – askjan.org
- Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) – resna.org



RESOURCES – AT & EMPLOYMENT

- Assistive Technology Industry Association (ATIA) – atia.org
- PA Employment First – dli.pa.gov/disability-services/employment-first
- PA Office of Vocational Rehabilitation (OVR) – dli.pa.gov/disability-services/ovr
- U.S. Department of Labor – Office of Disability Employment Policy (ODEP) – dol.gov

ANY QUESTIONS?



THANK YOU!



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