

# Assistive Technology in the Workplace



# Presenter

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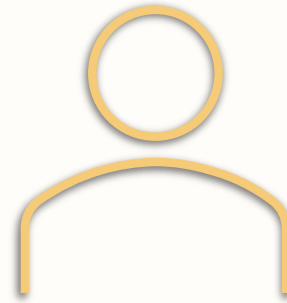
# Access check



Captions



Image descriptions



Be yourself



Other  
accommodations?

# This workshop is designed to help you...

1

Define assistive technology

2

Identify three (3) assistive technology devices that can be used in the workplace

3

Describe one (1) built in accessibility feature that might be helpful for you or someone you know

4

Analyze one (1) universal design principle and identify a specific way to apply it to increase accessibility in your own life or workplace.

# About Tech0WL

- Technology for **O**ur **W**hole **L**ives
- We are the state assistive technology act program for the state of Pennsylvania.
  - Find your state program at [AT3center.net/stateprogram](http://AT3center.net/stateprogram)
- Based at the Institute on Disabilities at Temple University



# Core Services of AT Act Programs



Device demonstrations



Equipment lending

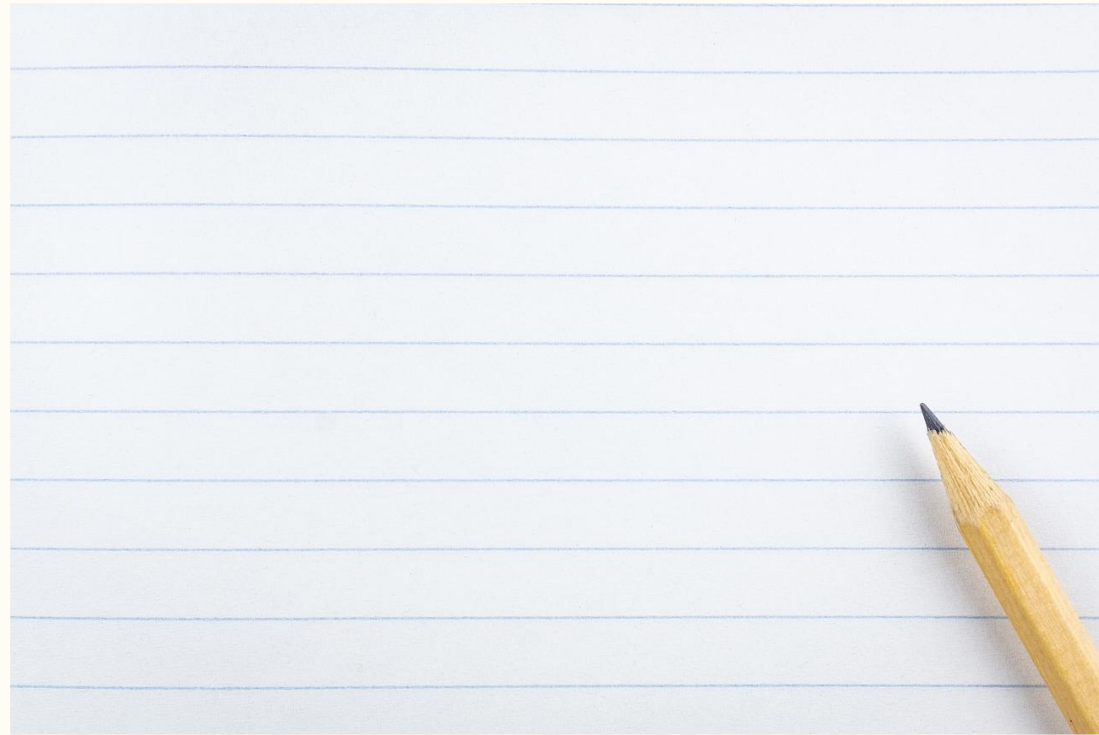


Equipment donation



Presentations, training, and technical assistance

# Take out a piece of paper and writing tool



# Copy this paragraph

Mae rhai pobl yn cael anhawster i gymryd nodiadau am amrywiaeth o resymau. Gall fod oherwydd bod ganddynt olwg gwael, anhawster gyda chydsymud llaw a llygad, neu ddyslecsia. Mae yna bethau y gallwch chi eu gwneud i'w gwneud hi'n haws i bobl sy'n cael anhawster i gopïo nodiadau o fwrdd.

# Translation

Some people have difficulty taking notes for a variety of reasons.

It may be because they have poor vision, difficulty with hand eye coordination, or dyslexia.

There are things you can do to make it easier for people who have difficulty copying notes from a board.

# Discuss

- What could I have done to make that easier/more accessible for you?

# Ways to make things easier/more accessible

- Accommodations
- Universal design
- Assistive technology

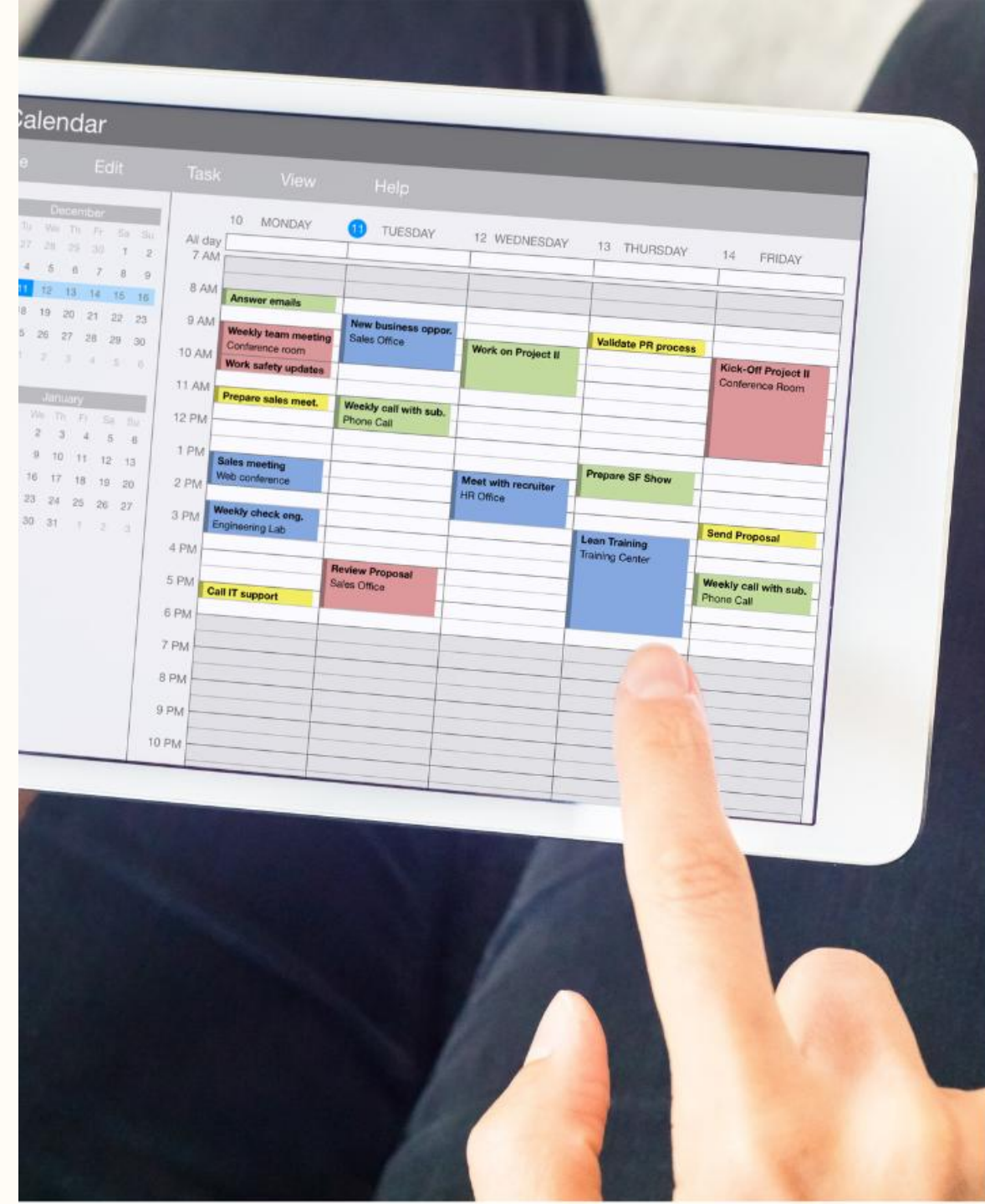
# Reasonable accommodations

Any change or adjustment to a job or work environment that permits a qualified applicant or employee with a disability to **participate in the job application process, to perform the essential functions of a job**, or to **enjoy benefits and privileges of employment** equal to those enjoyed by employees without disabilities (EEOC, 2022).



# Examples of reasonable accommodations

- Reserved parking
- Alternative formats
- Flexible work schedules
- Equipment changes
- Reassignments



# **ADA standards are a minimum benchmark**

Universal design and assistive technology can help us think more expansively.

# Universal Design

Universal Design is the design and composition of an environment so that it can be **accessed**, **understood** and **used** to the greatest extent possible by all people regardless of their age, size, ability, or disability.

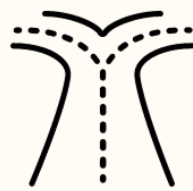
(Centre for Excellence in Universal Design, 2026)



# 7 Principles of Universal Design



Equitable use



Flexibility in Use



Simple and intuitive use



Perceptible Information



Tolerance for Error



Low Physical Effort



Size and Space for Approach and Use

To learn more about these seven principles, check out [universaldesign.ie](http://universaldesign.ie).

# Universal design example: OXO products



# Universal design example: IKEA directions



# What else is universally designed?

# Accommodations vs. Universal Design

## Accommodations

- Reaction to an person's need
- An afterthought
- Can be more costly, time consuming, challenging, and cumbersome

## Universal Design

- Plans for use, participation or access by a wide variety of people
- Incorporates accommodations into initial and ongoing planning and design

# Assistive technology

# Assistive technology devices

- **Definition:**

- An item or piece of equipment that “is used to increase, maintain, or improve the functional capacities of individuals with disabilities.”

- **Basically:**

- Tools that make life easier, safer, or more independent!

# Assistive tech example #1: Straws



# Assistive tech example 2: Fidget spinner



# Assistive tech example 3: KitchenAid mixer



# **Assistive technology continuum**

# Light tech

- Free or inexpensive
- Readily available
- Doesn't require training and/or ongoing support
- Not overly complex

**What are some other light tech tools?**



# Mid tech

- Low cost or moderately priced
- May require some training and/or ongoing support
- Somewhat sophisticated

**What are some other mid tech tools?**



# High tech

- Expensive
- Require extensive training and/or ongoing support
- Usually more sophisticated

**What are some other high tech tools?**





# AT Continuum

We try to provide people with the most appropriate tool regardless of where it lands on the continuum.

# Examples of **assistive technology** and **universal design** for the workplace

Featuring tools from the assistive technology lending library

# A note about AT devices



The following slides showcase *just a few examples* to get you thinking about the possibilities.



Employers and employees with disabilities should work together to consider possible solutions.



Disability is *complex* and intersectional. Someone might have more than one kind of disability.



Learn more about the **interactive accommodation process**:  
<https://askjan.org/toolkit/Sample-Accommodation-Process.cfm>



What works for one person might not work for another person.



Pick out a few things that you are interested in learning more about.

# Categories of AT devices



Moving and controlling  
the environment



Vision



Hearing



Memory &  
cognition

# Assistive tech: Moving & controlling the environment



Ergonomic keyboards and mice

Smart home tech

Bendable stylus



TiPY one handed keyboard

# Built in accessibility: Moving & controlling the environment

**Speech to text:** Google Voice Typing in Chrome

**Assistive touch:** creates custom gestures

**Touch accommodations:** ignore repeats

**Voice control/Voice access:** control your device with your voice



# Universal design: Moving and controlling the environment

Spaces that wheelchair and mobility equipment users can navigate

Storage options including short bookshelves and cabinets

Adjustable desks

Lever door handles and light switches



# Assistive tech: Hearing

Digital stethoscope: 40x amplification and active noise cancellation

Pocket talker: Amplifies sounds closest to the listener while reducing background noise

Hearview Subtitle Glasses

Domino Pro Listening System



# Built in accessibility: Hearing



Sound recognition



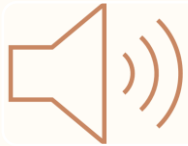
Flash notifications  
for alerts



Live transcribe



# Universal design: Hearing



Phones with volume control and captioning



Multisensory components for alarms, including visual signals.



Video calls with captioning and interpreters



Sufficient light for sign language users



# Assistive Tech: Vision

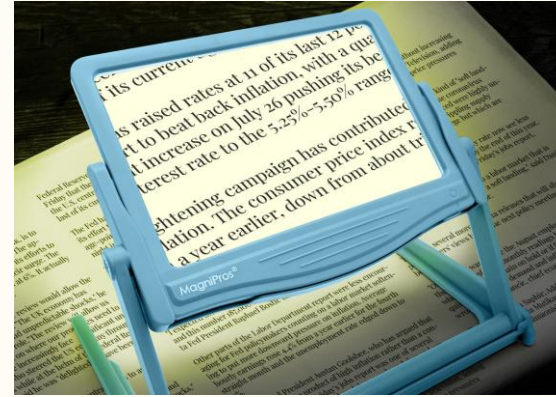
**Tabletop magnifier:** 5x magnification and 3 lighting options

**E-ink Monitor:** glare-free, paper-like reading experience

**OrCam MyEye:** Reads text, recognizes faces, identifies products by barcode, and more.

**Ruby 10 Magnifier with Speech**

**Meta Glasses:** AI to narrate surroundings, read text, and identify objects hands-free



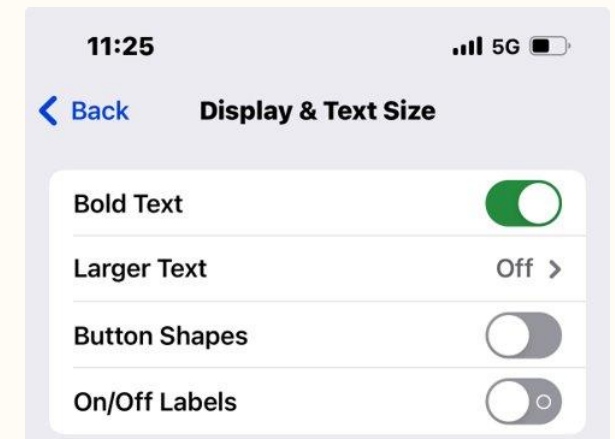
# Built in accessibility: Vision

**Screen magnifiers/Zoom:** Full Screen or magnify only part of the screen

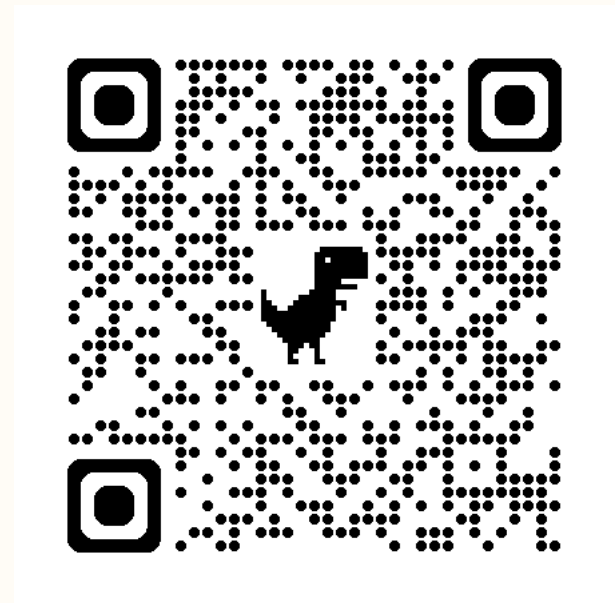
**Screen Readers:** describes what's happening on your device so you can navigate by listening and performing gestures.

Text size

Contrast



# Microsoft Seeing AI



# Universal design: Vision



Adjustable lighting



Phones with large print



Signage with good color contrast



Multisensory components for alarms, including auditory signals.



# Assistive tech: Memory & Cognition

Ophaya Smart Pen

C-Pen Reader

Smart home tech and smart watches

Noise canceling headphones

OrCam Read



# Built in accessibility: Memory & Cognition

**Otter AI:** Automated meeting note taker, real time transcription

**Genio Note Taking Tool:** captures, transcribes, and organizes meetings

**Grammarly:** spelling, punctuation, clarity in real-time

**Assistive Access/Action Blocks:** Adjusts apps to be larger and contain core features that can be customized.

Reminders and alarms



# Universal design: Memory & Cognition

Options for how information is received  
(e.g., audio, text, visual)

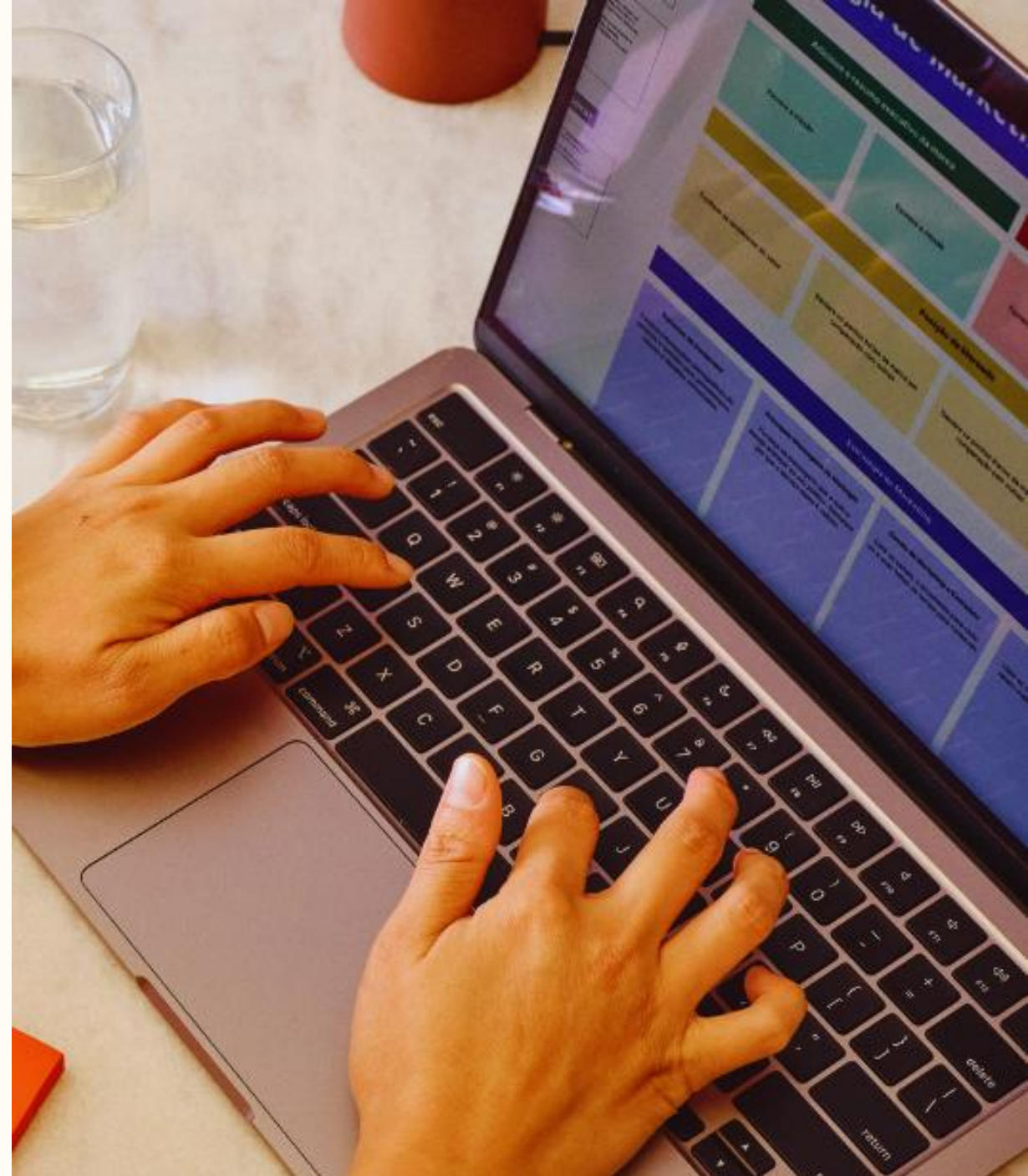
Color coding

Captions

Quiet and low stimulation spaces

Plain language

Meeting agendas



# Choose one accessibility tool to try

## Hearing

- Sound recognition
- Flash notifications
- Live transcribe

## Vision

- Bold text
- Zoom
- Spoken content

## Moving and controlling the environment

- Assistive touch
- Touch accommodation
- Voice control

## Memory & cognition

- Assistive access (iPhone)
- Action blocks (Android)
- Guided access (iPhone)/Screen pinning (Android)
- Grammarly

# Assistive Technology & Transition

- Help students understand ownership and funding, including future access
- **Questions to ask:**
  - Do your student own the device or does the school?
  - What services are currently provided by school to support the use of the device?
  - Who will provide AT after graduation?



# Brainstorm: One way to make your workplace more accessible

- Space
- Storage
- Desks
- Chairs
- Lighting
- Sound
- Communication
- Safety
- Built in accessibility
- Universal Design
- Assistive tech

# Ways Tech0WL and other state AT Act programs can help

# Assistive Technology Lending Library

- [www.techowlpa.org/library](http://www.techowlpa.org/library)
- Don't live in PA? Find your lending library at [www.at3center.net/state-at-programs](http://www.at3center.net/state-at-programs)



# 3D Printed Tools

- <http://www.techowlp.org/maker-catalog>
- Other state assistive tech programs
- Makers Making Change
- Make Good
- PrintLab



# Free Special Phone Program

- Serves residents who have:
  - Disability (hearing, vision, cognitive, or physical) which makes it difficult to use a typical phone, AND
  - Income below 200% of the federal poverty level (eg \$29,160 for a single person)
- Applicant is responsible for phone service
- Apply online at <https://techowlpa.org/tddp/> or ask for an application to be mailed to you



# Consults and demonstrations

- Discuss options and pros/cons of different tools



# Get in touch and follow along

TechOWL main office

Phone: 800-204-7428

Email: [TechOWL@temple.edu](mailto:TechOWL@temple.edu)

Web chat: [techowlpa.org](http://techowlpa.org)



@TechOWLpa

# Survey

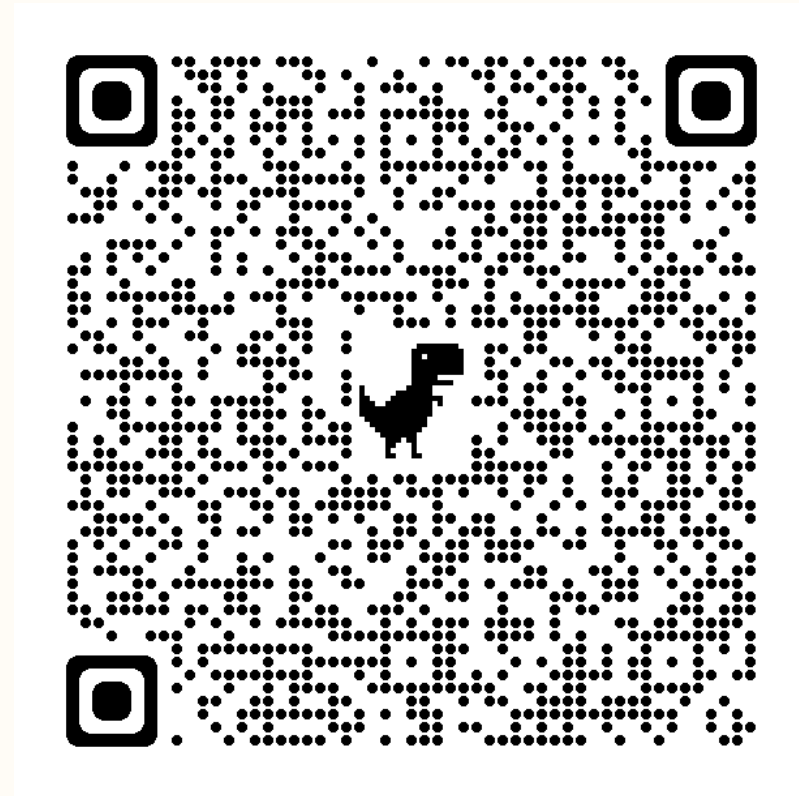
[Bit.ly/TechOWLSurvey](https://bit.ly/TechOWLSurvey)

**Title of presentation:**

AT at Work

**Presenter:**

Alanna



# Questions