Assistive Technology & Low Vision Devices

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Objective

- **Overview of how MCB determines the best-fit technology and training for students**
  - **Enhancing student success through technology-based tools and training**
- **Common assistive technology solutions:**
  - **Hardware**
  - **Software**
- **Available training options for consumers**
- **Review of effective and ineffective solutions**
- **A look at the future of assistive technology**

Disability in Massachusetts

Source: U.S. Census Bureau, 2023 American Community Survey 1-Year Estimates

Total Population	7,029,917
People with Disabilities	12.8%
Hearing Difficulty	3.1%
Vision Difficulty	2.0% ~30,000 Massachusetts residents are legally blind

Assistive Technology Unit

- **Alexander Pooler, Director of Assistive Technology**
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- **Richard Flint, Vocational Rehabilitation (VR) Trainer**
- **Evan Silver, Assistant Director of Assistive Technology**
  - **Region 1:** William Hersh
  - **Region 2:** Brendan Finn
  - **Region 3:** James Verrill
  - **Region 4:** Jeffery Tillinghast
  - **Region 5:** Frank Ventura
  - **Region 6:** Hope Paulos

- **Lauren Nardini, ADA Specialist & Social Work Technician**
- **Alvin Calderon, ADA Specialist & Social Work Technician**
- **Joseph Trudeau, ADA Specialist & Social Work Technician**

- **External Contractors**
  - **Low Vision Specialist at The Carroll Center for the Blind**
  - **JAWS Scripting with occupational rehabilitation**
  - **Other services at:**
    - **Community non-profit organizations, such as Perkins School for the Blind**
    - **Private entities, such as New England Low Vision and Blindness**

Vocational Rehabilitation (VR) Services

- **Must be registered with MCB**
- **Accept services and receive a regionally assigned case manager**
- **Develop and agree upon a vocational rehabilitation plan**
- **Identify the need for assistive/adaptive technology**
- **Case manager refers to the Assistive Technology (AT) Unit**
- **Case assigned to an AT Specialist in the region**

Assistive Technology (AT) Assessment

- **Review the student's current skillset and visual impairment**
- **Identify tasks and goals to be addressed**
- **Deploy appropriate hardware/software solutions**
- **Provide training and ongoing support**
- **Coordinate with disability services at the institution**
- **Collaborate with the MCB team and relevant stakeholders:**

Institution	Professors & Instructors
Family	Any internship, volunteer, or academic opportunities

Assessing the Student's Current Needs

- **Assistive Technology needs evolve from secondary to post-secondary education or vocation training**
- **Computer literacy on Chrome differs from literacy in a PC environment**
  - **Windows**
  - **Office**
- **Clarify the difference between "want" vs. "need" in technology**
  - **Considerations for Apple products**
  - **If school has a computer or equipment requirements, MCB will work to meet them**

Technology Solutions MCB Deploys

Dedicated Low-Vision Technology	• **Desktop and portable video magnification**
Blindness Technology	• **Optical Character Recognition (OCR) devices**
Mainstream Technology (Adapted for Accessibility Technology)	• **iPad**
Software That Renders a Computer Accessible	• **JAWS** • **ZoomText** • **Fusion**

Responsibility of Students

- **Ensure proper care of technology**
  - **Be mindful of trips to the beach or family vacations**

- **Must maintain communication with case manager, AT unit, disability services, school, teachers, and professors**
  - **Inform us of access issues with digital materials with as much advance notice as possible**

- **Be mindful of deadlines and set reasonable expectations**
  - **Study aboard considerations**
  - **Leaving Massachusetts for school**
    - **MCB cannot provide services outside of Massachusetts; coordination with a local vocational rehabilitation (VR) agency may be required**

Managing Expectations

- **MCB provides the tools to succeed**
- **Not always the "cool" tools, but the ones that work best**
- **Some items can be upgraded, others cannot:**
  - **Computer operating systems**
  - **Adaptive software**
- **When issues arise, they may take time to resolve:**
  - **Timely communication is key**
  - **Repairs may take time**
  - **Loaner equipment may or may not be available**
  - **Students are responsible for keeping teachers, professors and instructors updated on status of any issues**

- **Remember the issue of Chrome vs. PC?**
- **Early introduction allows the student to become comfortable with the technology while receiving maximum support**
- **Helps stretch the student's comfort zone**
- **Encourages greater individual independence**

Best Approach

✓ Have a clear goal in mind

✓ Understand the student's limits & abilities

✓ The best technology is only as useful as the student's ability to use it

✓ Allow student to continue using familiar technology while exploring new options

Example

| Desktop Video Magnifier | Portable Magnifier |

Example

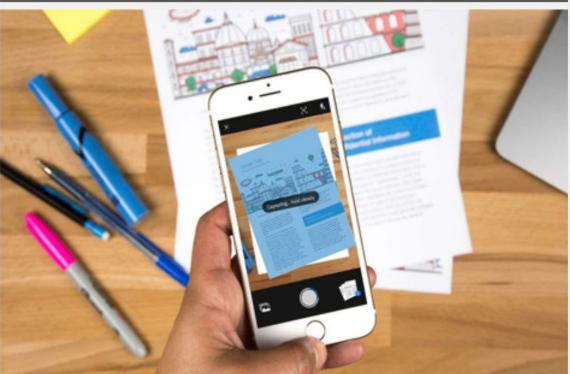

Standalone OCR

Smart Phone Application

Training & Ongoing Support

- **Everything is changing**
  - **Technology**
  - **Tasks**
  - **Classroom expectations**
  - **Integrating technology with the curriculum**

As the student progresses with assistive technology → **Their understanding, comfort, and expectations grow** → **We can now do more!**

What Success Looks Like

✓ **Achieving vocational goals**

✓ **Increased self-confidence**

✓ **Greater personal & community independence**

✓ **Expanded access to a wider range of technology that enhances outcomes**

MCB
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FOR THE BLIND

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