

Assistive Technology and Higher Education

This issue of our newsletter is about the use of assistive technology in higher education, and introduces the Higher Education Assistive Technology Lending Program, or HEAT.



BENEFITS OF ASSISTIVE TECHNOLOGY IN POSTSECONDARY EDUCATION

by Patrick Gordon, Student Services Coordinator (AT), Temple University Disability Resources & Services

For thousands of college students with disabilities across America, the usage and availability of assistive technology is just as vital to their academic success as registering for classes and paying tuition.

An absolute necessity for some students and a subtle enhancement for others, assistive technology plays an integral role for many in successfully completing postsecondary education.

Students with all types of disabilities depend on assistive technology as a means to access course documents, finish projects, and complete examinations.

“Using [text-to-speech] software really was a lifesaver for me this past semester,” said one Temple University student, a film major now studying film in Italy. “It helped me have a better grasp of the text and I scored higher on my exams because of it.”

Assistive technology (AT) is essential to postsecondary institutions throughout the country—it connects a student’s

cognitive abilities to an educational opportunity that may not be accessible due to a disability.

“Technology can provide important tools for making the performance of tasks quicker and easier,” said Roxanne Rice, an employee of the National Information Center for Children and Youth with Disabilities. “But for some individuals with disabilities, assistive technology is a necessity that enables them to engage in or perform many tasks.”

According to most disability service providers at postsecondary education institutions, the advantages of AT are numerous, so long as users are properly trained and willing to take the time to learn about the technology.

Many academic institutions, including Temple University, have specific pieces of AT networked throughout mainstream computer labs so the AT can be used practically anywhere on campus.

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What is HEAT?

HEAT, or the Higher Education Assistive Technology Lending Program, is an enhancement to Pennsylvania’s Assistive Technology Lending Library. HEAT is funded by a grant from the Pennsylvania Department of Education and enables students in Pennsylvania’s post-secondary programs—colleges, universities, vocational training
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“Making assistive technology widely available allows students with disabilities to be served quickly, without bureaucracy,” said Cathy Jenner, an employee at Renton Technical College in Seattle, Washington.

Offering AT in postsecondary educational settings levels the academic playing field and fosters success.

In the past, blind students did not have equal access to course documents because of the lack of technology and understanding of document accessibility.

With more current technology, like text-to-speech software, blind students now have equal access almost immediately to those very documents that may not have been easily available in the past.

Textbooks, which took weeks to transcribe and edit before, can now be scanned and returned to a student in an electronically accessible format within days, if not hours.

Perhaps the most notable benefit of AT, however, is that it significantly enhances the classroom experience for students, regardless of disability. Using AT encourages independence and helps cultivate skill sets needed for employment.

According to the Department of Education, nearly 10 percent

of college students have been diagnosed with some type of disability over the past seven years. The need for AT on campuses across the country has never been greater.

“Nothing in postsecondary disability support services is as exciting as the recent developments in adaptive technology,” said Sam Goodin, Director of Services for Students with Disabilities at the University of Michigan.

“High-powered scanners coupled with computers equipped with speech output

allow blind students to read at speeds that sometimes surpass sighted students. Computers with voice input allow students with high

level spinal cord injuries to type and control many parts of their environment.”

With recent advances and understanding of assistive technology at postsecondary institutions, now **all students** have the opportunity to focus on an academic major of their choosing.

“They might not realize it,” said Charles Dee, an employee of the Columbia Lighthouse for the Blind, referring to AT users in a recent interview with the Washington Times. “But they can be anything from lawyers to counselors.”

“Making assistive technology widely available allows students with disabilities to be served quickly, without bureaucracy.”

What is HEAT?

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schools—to borrow the equipment they need for up to one semester (15 to 16 weeks). To access the HEAT program, applicants must:

- Be a part-time or full-time student attending a post-secondary program in PA.
- Have a disability that requires specified AT in order to meet the academic demands of the institution.
- Be enrolled with the office that serves students with disabilities at the post-secondary program.

If a student does not meet these requirements, they may still be able to borrow devices through PA’s AT Lending Library, but for a shorter length of time.

Devices available include:

- Vision aids, such as CCTVs and other magnifying systems
- Assistive listening devices
- Specialized software for reading, writing, and/or learning
- Organizational aids such as personal digital assistants (PDAs)
- Specialized instruments such as “talking” scientific calculators and amplified stethoscopes

Devices available through the HEAT program are listed in the Equipment Catalog on the AT Lending Library website (<http://disabilities.temple.edu/atlend>), then click on the Equipment Catalog link). When you are on the main page of the Equipment Catalog, scroll down and you will see a link that says “Show Only Items from Higher Education AT Lending Inventory (HEAT).” Click on that link to see the items available through HEAT.



Most of the devices available through HEAT are also a part of the general circulating inventory of the Lending Library.

Sampling of Devices Available from the HEAT Program

DigiMemo Pad

Place a letter-sized notepad on the DigiMemo and write on the paper with the digital inking pen. The DigiMemo will record anything written on the pad in its built-in storage device. Each page written is stored as one digital page, and up to 99 pages can be stored. The device can be connected to a computer using a USB port so the saved pages can be easily viewed, edited, and organized. Documents can be saved in many different formats, including JPG, GIF, and BMP. When connected to a PC, the DigiMemo Pad becomes a USB tablet device. In addition, the DigiMemo Handwriting Recognition Software (included) will convert handwritten notes and diagrams to printed text so they can be edited using Microsoft Word.

Inventory code: HEAT-ED-DIGI; Cost: \$160; CompAmerica, 888-275-2771, www.digi-memo.com



Opal Handheld Video Magnifier

The Opal is a battery operated handheld video magnifier with a four-inch display that magnifies from 3x to 6x. To use, place the Opal over an object or document, and use the slider bar to zoom in and adjust the magnification. The magnified image is viewed on the display screen, or the Opal can be connected to a television or computer monitor for a larger display. Images can be displayed in several color or black and white options.

Inventory code: HEAT-RD-OPAL; Cost: \$795; Freedom Scientific, 800-444-4443, www.freedomscientific.com



HEAT Frequently Asked Questions

■ Why do I want to use HEAT and not the “regular” Assistive Technology Lending Library?

In general, Pennsylvania’s Assistive Technology Lending Library allows individuals to borrow devices from 2-8 weeks—depending on the complexity of the device. If necessary, and IF there is no one else waiting for the device, a 2 week extension may be possible. By borrowing through HEAT, a student can depend on having the device for the entire semester.

■ What happens if the device breaks during the semester, and I need it for my class?

Most of the devices available through HEAT are also a part of the general circulating inventory of the Lending Library. If the device does break during your HEAT loan period, you will have priority for a loan from the general inventory for the rest of the semester, or until the device you originally borrowed can be repaired and returned to you.

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Digital Stereo Voice Recorder

The Olympus DS-30 digital voice recorder can record up to 67 hours of information in 5 voice folders of up to 200 messages each. An index mark feature allows the user to quickly find desired locations, and there is an audio “voice guidance” feature that announces menu functions. The USB cable and software (included) allow the user to upload files to a PC for playback.

The DS-30 will also playback and store WMA and MP3 music files, and podcasts. Other features include: three modes of microphone sensitivity; time recording and alarm; noise filter; and voice activation.

Inventory code: HEAT-RD-VROLY; Cost: \$60; Olympus Imaging America, Inc., 888-553-4448, www.olympusamerica.com



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■ Can I borrow the same item for more than one semester?

No. The purpose of the program is to provide students an opportunity to make a decision about the assistive technology that can help them in their academic career, and to make sure students have the AT they need. Where the need for a device is likely to continue longer than one semester, the school's office for students with disabilities should provide the item.

■ What if the device I need is not part of the program?

Contact PIAT or your local ATRC and let us know what device you are requesting. If possible, we will try to add it to the inventory. Search the general Lending Library Catalog for a similar device (<http://disabilities.temple.edu/atlend>). A device in the general Lending Library inventory may be used for the standard loan period.



Talking Scientific Calculator

The Orion Model talking calculator, by Texas Instruments, is designed for use by students who are blind or have low vision. It has over 127 scientific functions, including 1 and 2 variable statistics, trigonometry, and unit conversion. It will verbally identify the keys that are pressed and read the display. The calculator measures 6 x 3 inches, weighs 11 ounces, and comes with earbud style earphones.

Inventory code: HEAT-ED-ORION-CAL; Cost: \$249; Texas Instruments, 972-644-5580, www.ti.com



Franklin Language Master LM-6000

This device is a voice output dictionary. It includes: 130,000 words, 300,000 definitions, over 500,000 synonyms, 10,000 antonyms, a grammar guide, a dynamic phonics guide (to sound out words), phonetic spell correction, 12 word games, and more. Other features include a typewriter style keyboard, adjustable font size, volume control, 8-line display, built-in speaker and headphone jack.

Inventory code: HEAT-ED-FLM; Cost: \$140; Franklin Electronic Publishers, 800-266-5626, www.franklin.com

Related Websites

<http://www.heath.gwu.edu> - The HEATH Resource Center is an online clearinghouse on postsecondary education for individuals with disabilities. The HEATH Resource Center Clearinghouse has information for students with disabilities on educational disability support services, policies, procedures, adaptations, accessing college or university campuses, career-technical schools, and other postsecondary training entities.

www.thinkcollege.net - This website provides information and links to anyone interested in finding out more about the possibilities for youth with intellectual disabilities to go to college.

www.ed.gov/about/offices/list/ocr/transition.html - A publication by the U.S. Department of Education and the Office of Civil Rights entitled "Students with Disabilities Preparing for Postsecondary Education: Know Your Rights and Responsibilities," this document includes information on "academic adjustments."

www.washington.edu/doit/Brochures/Programs/scholars.html - DO-IT Scholars is a program of the University of Washington that prepares young people with disabilities for college, careers, independent living, and leadership roles in society.

www.postitt.org - The Post-ITT website is a collection of resources and activities to help students, parents and educators plan for transition from secondary to postsecondary schools.

PENNSYLVANIA'S ASSISTIVE TECHNOLOGY LENDING LIBRARY

Call toll-free: 877-PA AT LEND (VOICE/TTY)

EMAIL: atlend@temple.edu

WEB: <http://disabilities.temple.edu/atlend>

AT FOCUS—EDITOR: Sandra McNally

EMAIL: smcnally@temple.edu

TEL. 215-204-3370

PA's Assistive Technology Lending Library is funded by the Commonwealth of PA, with partial support from the U.S Dept. of Education (through PA's Initiative on Assistive Technology) and through the contributions of AT vendors, manufacturers, and users of the Lending Library.

Available in alternate formats, by request

