

*Assistive Technology: A How-to-Guide for Incorporating Assistive Technology Campus-Wide*

July 22, 2009  
2009 AHEAD Conference  
Louisville, Kentucky

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Learning Outcomes

- Participants will gain knowledge on prevalent Assistive Technologies in a post-secondary environment
- Participants will identify key players at their own institutions
- Participants will learn how to implement a campus wide initiative to incorporate assistive technology in classrooms and computer labs

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Addressing AHEAD Values:

*“equitable, sustainable,  
and useable  
postsecondary  
environments”*

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## Assistive Technology

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## What is Assistive Technology?

- Assistive technology is technology used by individuals with disabilities in order to perform functions that might otherwise be difficult or impossible. Assistive technology can include mobility devices such as walkers and wheelchairs, as well as hardware, software, and peripherals that assist people with disabilities in accessing computers or other information technologies. —*University of Washington*
- Examples of AT are: screen readers, FM transmitter devices, speech-to-text software, and closed-captioning television.

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## What are the benefits of AT?

- Students are able to comprehend text better (Text-to-speech software)<sup>1</sup>
- Students are able to hear and/or see with ease (Screen enlargers, screen readers)<sup>2</sup>
- Students who may have been limited due to mobility issues are able to have increased access (larger computer mice)
- Students are able to process their thoughts better (Speech-to-text software)<sup>3</sup>

1. Retrieved from [http://www.kurzweil.edu.com/proof\\_research\\_2002.aspx](http://www.kurzweil.edu.com/proof_research_2002.aspx)

2. Retrieved from [http://www.aisquared.com/customer\\_stories/more/zoomtext\\_improves\\_accuracy\\_for\\_new\\_york\\_presbyterian\\_hospital/](http://www.aisquared.com/customer_stories/more/zoomtext_improves_accuracy_for_new_york_presbyterian_hospital/)

3. Retrieved from [http://www.nuance.com/naturallyspeaking/pdf/cs\\_DNS10\\_Landmark\\_FINAL.pdf](http://www.nuance.com/naturallyspeaking/pdf/cs_DNS10_Landmark_FINAL.pdf)

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It's time for the Celebrity Quiz!



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Tom Cruise is diagnosed with dyslexia.  
He learns his lines by listening to a tape.  
What assistive technology would benefit Tom?

- a. Screen Enlarger (Zoom Text)
- b. Text to Speech Software (Kurzweil)
- c. A Screen Reader (JAWS)
- d. None of the Above



**b. Text to Speech**

Information retrieved from The Office of  
Affirmative Action, Division of Agriculture  
& National Resources, University of  
California  
NKU NORTHERN  
KENTUCKY  
UNIVERSITY

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Claude Monet, a famous painter, began to slowly lose his vision. If he had access to a computer, what AT would have helped him see the screen better?

- a. Screen Enlarger (Zoom Text)
- b. Text to Speech Software (Kurzweil)
- c. A Screen Reader (JAWS)
- d. None of the Above



**a. Screen Enlarger  
(Zoom Text)**

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Stevie Wonder, a famous musician, was blind from infancy. What AT would help him navigate the many different facets of a computer?

- a. Screen Enlarger (Zoom Text)
- b. Text to Speech Software (Kurzweil)
- c. A Screen Reader (JAWS)
- d. None of the Above



**a. Screen Reader  
Jaws**

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Implementation of Assistive Technology

- What's Available?
  - NKU DS has available Kurzweil 1000 and 3000, Dragon, JAWS, ZoomText, and Optelec for student use during testing.
- When is It Available?
  - NKU DS makes AT available to students for proctored testing during normal business hours, M-F, 8:15 – 4:30.

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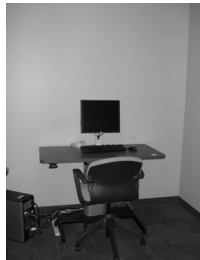
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Current Configurations of NKU DS AT



NKU DS has 4 individual rooms dedicated to Assistive Technology. These rooms contain: Optelec, Kurzweil 1000 and 3000, Zoomtext, JAWS, and Dragon.

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## Current Configurations of NKU DS AT



The larger testing rooms contain Zoomtext and Kurzweil 3000. Each station is equipped with Headphones for the text-to-speech software.

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## Current Configurations of NKU DS AT



Student Scan station for Kurzweil 1000 and 3000 – we have flatbed and automatic-feeder scanners. The flatbed scanners are great for textbook scanning whereas the automatic feeder scanner is great for scanning tests and single-page, double-sided notes.

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## What About After-Hours?

- Key Locations:
  - Library
  - Learning Assistance Center (Tutoring Center)
  - Computer Labs Open to Students

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## Key Players: Who Needs to Be Involved?

- In order to make AT available in these areas, we felt the key players needed to be:
  - Information Technology
  - Library Staff Members
  - LAC Staff Members

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## Group Work

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## What AT Should be Available?

- After thorough discussion, it was thought that the following AT should be available at the extended hours locations:
  - Kurzweil Pro Scan and Learning Stations– Text to Speech Software
  - Dragon – Speech to Text
  - JAWS – Screen Reader
  - Optelec – Text Enlarger (paper copies)

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## Who is Responsible?

- Who is responsible for the following aspects of AT:
  - Cost
  - Set-Up
  - Maintenance(technical difficulties, upgrades, etc.)
  - Training of Staff on each AT

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## Location of AT Software and Equipment

- **Library** – Since the Library is comprised of multiple floors, finding the most appropriate and accessible place for AT was key

- 4 Kurzweil Scanning Stations



- Computer Lab Equipped with Kurzweil Learn Stations

- Optelec



- The Library was able to secure private rooms for Dragon and JAWS Software.

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## Location of AT Software and Equipment

### ■ Computer Labs

- NKU has computer labs that are available to professors for classes, as well as ones that are dedicated "Open" labs.
- NKU IT Department was able to obtain a license that allowed Kurzweil LearnStations to be installed on all of these computers.



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## Location of AT Software and Equipment

### ■ Learning Assistance Center (LAC)

- NKU DS purchased 1 Kurzweil Scan station for the Learning Assistance Center, where many DS Students go to get help with papers.



### ■ Residence Hall Computer Labs

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## Assistive Technology Across Campus

### ■ How will students know that AT is available in other places other than DS office?

- Flyers
  - Brochure racks
  - Orientation
- Web site
- Listserv

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## NKU Disability Services Assistive Technology & Software - Campus Locations

- |  |  |
|--|--|
| <b>Kurzweil 3000</b> – (text to speech software)<br>Steely Library – 4 <sup>th</sup> floor<br>Founders Hall, room 209 – Learning Assistance Center<br>University Center 320 (for testing use only) – Testing and Disability Services | <b>JAWS</b> – (computer screen reader)<br>Steely Library – 4 <sup>th</sup> floor   |
| <b>Kurzweil 1000</b> – (text to speech and Braille software)<br>University Center – Testing and Disability Services  | <b>Optelec</b> – (text enlarger)<br>University Center 320 – Testing and Disability Services<br>Nunn Hall - Chase Law Library<br>Steely Library – 4 <sup>th</sup> floor |
| <b>Dragon Naturally Speaking</b> – (speech to text software)<br>Steely Library – group study rooms 131 and 133.<br>Students can get a key to these rooms at the circulation desk on the 3 <sup>rd</sup> floor                        | <b>Zoomtext</b> – (computer screen enlarger)<br>Steely Library - 4 <sup>th</sup> floor   |

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## Checklist for Incorporating Assistive Technology Campus-Wide

- ❑ Develop a committee dedicated to meeting the demands of AT
- ❑ Determine which AT students use most frequently
- ❑ Decide what departments/locations the AT should be located to best serve student population
- ❑ Discuss who will be paying for the purchase of the AT
- ❑ Train the appropriate staff members and/or student workers on each AT, as well as IT department
- ❑ Disseminate information to students regarding AT, location, and hours of operation for each location

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## Contact Information

Amy L. Danzo  
Technology and Testing Counselor  
Testing and Disability Services  
Northern Kentucky University  
(859) 572-5751  
danzoal@nku.edu

Lisa R. Besnoy  
Director  
Testing and Disability Services  
Northern Kentucky University  
(859) 572-5282  
BesnoyL1@nku.edu

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