NTID Center on

ACCESS TECHNOLOGY
For Students Who Are Deaf or Hard-of-Hearing

Rochester Institute of Technology | National Technical Institute for the Deaf | http://www.ntid.rit.edu/cat

NEED

Despite recent improvements in the ability of deaf and hard-of-hearing individuals to access information through the use or adaptation of technologies—the Internet, instant messaging, cellular phones, text messaging, video phones—these individuals still do not yet enjoy full 'access to information' in postsecondary education that is equal to that of their hearing peers.

Many existing and developing technologies have significant potential to serve as effective "access technologies" for deaf people. To address the

Students Using a Sidekick

unique challenges of utilizing or adapting new technologies for use in postsecondary educational settings, Rochester Institute of Technology (RIT) through the National Technical Institute for the Deaf (NTID) established the Center on Access Technology for Students who are Deaf or Hard of Hearing in March 2006.

The Center is the first and only organization in the world dedicated to advancing access technologies for the deaf and hard of hearing. The Center brings together worldwide expertise resulting in more efficient developments.
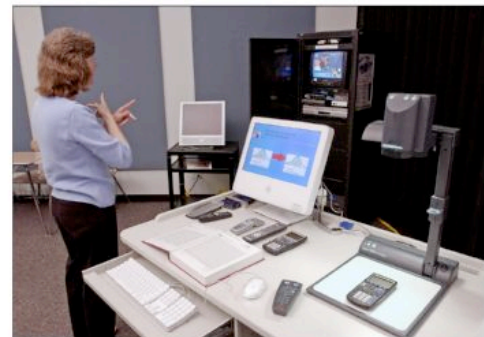
PLAN

This Center is a collaborative network of individuals from RIT and other universities, as well as from industry and professional that promotes research and development of access technologies that will positively impact postsecondary educational experiences for deaf-and hard-of-hearing individuals.

The Center is charged to investigate, evaluate, and report on the most effective and efficient use of access technologies and train individuals in their use in order to accelerate the widespread implementation of best practices within deaf education at the postsecondary level. The Center is focusing its efforts on technologies that have a high likelihood of improving access to postsecondary educational opportunities for deaf students within the next several years.

The time frame for the Center's projects from launch to completion is 18-36 months. In order to complete projects within the 18-36 month time frame, the Center seeks projects that fall into one of three categories listed below.

Project Categories:

▶ **Adapt/Adopt Existing Technologies**

▶ **Utilize Existing Professional Networks**

▶ **Education and Training**

Classroom Support

Voice Recognition Technology

Project Focus

Access technologies refer to technologies or devices that can be utilized by deaf or hard-of-hearing individuals to assist them in acquiring or sharing information, communicating, or otherwise participating in educational opportunities including classroom, online learning, laboratory experiences, as well as educational experiences taking place outside of the classroom. The Center is currently focusing its efforts on four strands of work where there exists a need and opportunity to improve access technology for the deaf.

Four Strands of Focus:

Classroom Access Technologies
Notetaking, captioning, text display systems, online and distance access technologies, establishment of flexible state-of-the-art classroom "laboratory" for experimentation, user interface and options for services.

Audio and Sound Technologies of Interest to Hard-of-Hearing Persons
Advanced audio technologies that can be incorporated into academic, employment and environments.

Training and Evaluation Services
Adaptation/adoption/assessment of access and assistive technologies in development, product evaluations on existing technologies, assessment tools/success measurement, assessment of teaching and learning with technologies, and processes for moving access technology to marketplace.

Mobile Technologies
Wireless, cellular, messaging, and personal digital assistants.

High technology classroom

Cochlear Speech Training

Funded Projects

■ **Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing Individuals in STEM**

NTID/RIT and the University of Washington will host a three day conference with 50 leaders in the field of support service provision for postsecondary deaf students in science, technology, engineering, and mathematics (STEM) programs on the campus of the Rochester Institute of Technology (RIT). June 25-27, 2008. The purpose of this Summit is to report on the current state of on-line remote interpreting and captioning, and identify the benefits and challenges associated with implementing a multimedia cyberinfrastructure that provides remote communication support for deaf and hard-of-hearing students in STEM mainstreamed classrooms. This project is sponsored by the National Science Foundation.

■ **Speech to Text Systems**

Speech to Text Systems: Comparative Analysis of Text Generation and Display Methods. Three year award in the amount of $269,542 from the National Science Foundation (Award ID: 0622854) commencing 1 September 2006. The purpose of this research proposal is to test the hypothesis that present day computer-based Automatic Speech Recognition (ASR) systems can be effective and cost efficient alternatives to human-generated text generation systems or sign language interpreters, and that the method of displaying the information plays a crucial role in the learning process. Peter Lalley, Project Manager.

■ **Directed Acoustic Technology as an Assisted Listening Device**

Directed Acoustic Technology as an Assisted Listening Device for Deaf and Hard-of-Hearing Population. Preliminary investigation of usability of "focused" "bean of sound" speaker technology for use with deaf and hard-of-hearing students. Donation of equipment and consultation from American Technology Corporation. E. William Clymer, Project Manager.
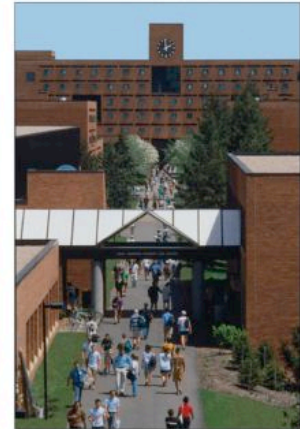

C-Print

Organization

Established by an act of Congress in 1965 and awarded to the Rochester Institute of Technology (RIT) in 1967, the National Technical Institute for the Deaf (NTID), an internationally recognized leader in providing postsecondary education to individuals who are deaf or hard of hearing, was created. Located in Rochester NY, NTID is one of the eight colleges of RIT. Ninety-two percent (92%) of NTID graduates secure positions that commensurate with their training immediately upon graduation.

Founded in 1829, RIT is the 11st largest private university in the nation and a world-class institute of technology. More than 1,100 deaf and hard-of-hearing students study, live, work and socialize daily with over 14,000 hearing peers.

The RIT campus is the logical location for the Center on Access Technology. Here, the Center will be in close proximity to more than 1,100 mainstreamed deaf students, and over 100 deaf faculty and staff. This places the Center in a unique position to study first-hand the access technology uses, challenges, and needs of deaf students, both in and out of the classroom.

RIT/NTID Campus

Personnel

James J. DeCaro

In addition to his responsibilities as Director of the Center on Access Technology, Dr. DeCaro is currently Director of PEN-International at NTID/RIT. PEN-International is a multinational collaborative network of colleges and universities serving to improve and expand education and career opportunities for deaf and hard-of-hearing students around the world. PEN-International is funded by The Nippon Foundation of Japan. Prior to holding this post, Dr. DeCaro served as Dean for NTID for 14 academic years; two of those as Interim Director and CEO. He hold BS and MS degrees in civil engineering and a Ph.D. in instructional technology.

E. William Clymer

Mr. Clymer, an Associate Professor at NTID/RIT, also currently serves as the Associate Director of PEN-International. He holds a MBA and a BS and MS in technology. His primary focus is on the application of technology in deaf education. Mr. Clymer has served as the chair of the NTID International Symposium on Technology and Education of the Deaf.

D-Link

SideKick

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