



## Center on Access Technology: For Students Who Are Deaf or Hard of Hearing

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 unique challenges of utilizing or adapting new technologies for use in postsecondary educational settings, Rochester Institute of Technology (RIT) through its 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 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 - will be 18-36 months. Based on research conducted in 2005, four areas of focus were identified. These strands include:

- Classroom Access Technologies
- Mobile Technologies
- Audio and Sound Technologies of Interest to Hard-of-Hearing Persons
- Training and Evaluation Services

In order to complete projects within the 18-36 month time frame, the Center seeks projects that fall into one of three categories: adapt/adopt existing technologies, utilize existing network, and education and training.

The Center has made great progress in the first year of operation. The following provides an update with regards to disseminating information, funded projects, submitted proposals, and working projects.

### *Disseminating Center Information*

- The NTID Center on Access Technology Brochure was created. (<http://www.ntid.rit.edu/cat/pdf/CAT-Brochure-12-18-2006.pdf>)
- Presentation report on CAT Plans and Accomplishments at CSUN International Conference on Technology and Disability on 23 March 2007. PowerPoint Slides in pdf format (<http://www.ntid.rit.edu/cat/pdf/NTID-CAT-CSUN2007-HNDS.pdf>)
- Presentation report on CAT Plans and Accomplishments at the Association on Higher Education And Disability (AHEAD) Conference on 19 July 2006.

### *Funded Projects*

- Speech to Text Systems: Comparative Analysis of Text Generation and Display Methods. Three year award in the amount of \$269,542 from NSF; NTID Professor Peter Lalley, Ph.D., PI.
- Directed Acoustic Technology as an Assisted Listening Device for Deaf and Hard of Hearing Population. Preliminary investigation of usability of “focused” - “beam 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.
- OnStar TTY: Usability Testing and Prototype Development for the Next Generation OnStar. A proposal for a 18 month, 3 phase grant from General Motors in the amount of \$365,000, submitted on 14 December 2006. The first phase of this proposal was accepted by GM in April 2007.



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### *Submitted Proposals*

- Rehabilitation Engineering Research Center (RERC) on Emergency Management Technology for Persons with Disability. A proposal for a 5 year, NIDRR, Department of Education grant in the amount of \$4.75 million, submitted on April 16, 2007.
- Providing Captions to IP Devices in Large Venues. A proposal for a 3 year, NIDRR, Field-Initiated Research, Department of Education grant in the amount of \$585,000, submitted on 31 January 2007.
- Viability Study of Remote Video Interpreting (RVI) Technical Readiness and Best Practice Guidelines. A proposal for a 24 month grant from a private donor in the amount of \$148,875, submitted 25 September 2006.

### *Working Projects*

- Workshop for Creating a Cyber-Community to Advance Deaf and Hard of Hearing in STEM (DHH Cyber Community). NTID/RIT and the University of Washington are proposing that NTID/RIT host a 50 person summit in May 2008 to establish a common framework for the creation and maintenance of the proposed cyber-community. Planning request to be submitted to the NSF, spring 2007. Request approximately \$155,000.
- Creating, Advocating and Maintaining an Accessibility Body of Knowledge for College Curricula. IBM's IBM Human Ability and Accessibility Center and NTID Center on Access Technology are submitting a proposal to the National Science Foundation (NSF), FastLane Process, for consideration of a 3 year, \$350,000 project to improve university curricula with regards to inclusion of accessibility content in technical education, spring 2007.
- Market Research and Product Evaluation. The Center on Access Technology is in preliminary discussions with Thompson, to provide focus groups and analysis of telephone and communication products designed for deaf and hard-of-hearing markets, spring 2007.

### *Challenges/ Goals for Year Two*

- Continue to develop and submit proposals for project grants that meet the stated objectives of the Center.
- Refine the flexibility of the RIT/NTID infrastructure to support awarded projects.
- Continue to disseminate CAT information and operating expectations of the Center through the launch of a CAT Web site, building upon the preparatory work conducted in year one; and attending 1-2 national conferences on access technology.
- Develop leadership potential of younger RIT/NTID faculty/staff members with an interest in Assistive Technology
- Continue to monitor the process of the Center and begin to prepare the year three review. This review will determine the effectiveness of the Center after three years of operation.