

Outline

In 1998, the AAC-RERC was established through a 5-year Rehabilitation Engineering Research Center grant from the National Institute on Disability and Rehabilitation Research (NIDRR). This consortium included leading researchers in the field of AAC from Duke University, Penn State University, University of Buffalo, Temple University, University of Nebraska, Boston Children's Hospital, and Augmentative Communication Inc. Working as a "virtual team", researchers, engineers, educators, speech language pathologists and individuals who use AAC implemented a coordinated program of research, development, training, technology transfer, and dissemination.

The development and day-to-day operation of AAC_RERC partners has been guided by four key principles:

- 1) that users of AAC devices had to be included in all aspects of the AAC-RERC;
- 2) that the activities undertaken had to be important to the AAC field but not being worked on by other entities;
- 3) that collaboration with commercial entities must occur as early as possible using a technology transfer plan developed in collaboration with the T2RERC and the Federal Laboratory Consortium; and,
- 4) that dissemination must reach key stakeholders.

Numerous significant advances in AAC were accomplished from 1998 through 2003.

In 2003, NIDRR funded the consortium for an additional 5 years to build upon the successful initial work. Referred to as the AAC-RERCII, the consortium continues to improve technologies for individuals who rely on AAC technologies in order to assist these individuals in achieving their goals across a range of communication environments. Six themes form the basis for this latest round of research and development activities:

- 1) Enhancing Access for Users with Cognitive/Linguistic Limitations
- 2) Supporting the Societal Roles of People Who Use AAC
- 3) AAC Simulation and Performance
- 4) Usability, Learnability, and Acceptance of AAC Technology
- 5) New Interface Technologies for Persons Not Well-Served by Current AAC Systems
- 6) Connecting AAC Technology More Seamlessly to the World

With respect to research, eight projects are being carried out in the areas of:

- 1) improving AAC technology to better support societal roles;
- 2) enhancing AAC access by reducing cognitive/linguistic load; and
- 3) enhancing AAC usability and performance.

These projects address issues of literacy, telework, specialized vocabulary, contextual scenes and intelligent agents, improving interface performance, and monitoring and simulating communication performance. With respect to development, seven projects are being carried out in the areas of:

- 1) technology and policy watch,
- 2) new interfaces, and
- 3) reducing the cognitive/linguistic burden on AAC users.

These projects address monitoring emerging technologies, standards, and policies; technologies to supplement intelligibility of residual speech, dysarthric speech, and gesture recognition; brain interface; AAC WebCrawling; and enhancing the role of listeners in AAC interactions. Consistent with its underlying philosophy of "nothing about us without us" the AAC-

RERC supports the efforts of a Writers Brigade to disseminate information and enhance employment opportunities for people who rely on AAC. This presentation will outline the above mentioned activities and their impact on the AAC field.