The Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing Individuals in STEM (DHH Cyber-Community) will occur on June 25-27, 2008 on the campus of the Rochester Institute of Technology (RIT) in Rochester, New York. This Summit, led by RIT and the University of Washington (UW), will occur immediately after the National Technical Institute for the Deaf (NTID)-sponsored 2008 International Symposium on Educational Technology and Education of the Deaf (June 23-25, 2008, http://www.rit.edu/~techsym). The Summit is supported by the National Science Foundation under Award No. OCI-0749253.

The goal of the Summit is to conduct a three day conference with 50 leaders (35 national, 15 regional) in the field of support service provision for postsecondary deaf students in science, technology, engineering, and mathematics (STEM) programs. The primary outcome will be to report on the current state of on-line remote interpreting and captioning. In addition, a recommendation report will be prepared that outlines the characteristics of a multimedia cyberinfrastructure that provides remote communication support for deaf and hard-of-hearing students in STEM mainstreamed classrooms.

The need for this Summit transpired as a result of an increase in the number of deaf and hard-of-hearing students mainstreamed in STEM programs in the United States, and the growing need for skilled interpreters and captioners who are competent in these specific areas of study.

Approximately 28 million individuals, 10 percent of the U.S. population, have significant hearing loss that interferes with their ability to carry out routine tasks or access information (Hitchen & Davis, 2002; Mitchell, 2006). Of these 28 million, it is estimated that 1 to 2 million use American Sign Language (Harrington, 2004). More than 300 of these men and women, who are mainstreamed in STEM programs at the baccalaureate level or higher, are enrolled at the National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT). The remaining STEM students who are deaf or hard of hearing, estimated at 400 (College and Career Programs for Deaf Students, 2001), are mainstreamed in over 100 different colleges and universities throughout the country.

As deaf and hard-of-hearing students seek to prepare for careers in STEM fields through tertiary education, there is a growing need for skilled interpreters and captioners who are well versed to interpret and caption at all course levels (beginner, intermediate, and advanced) in these fields (NTID Annual Report, 2006). Deaf and hard-of-hearing students seeking degrees in STEM fields of study often do not have easy access to interpreters and captioners who are knowledgeable with the scientific terms and technical language used and needed in order for them to be successful.
A multimedia cyberinfrastructure that supports deaf and hard-of-hearing students with appropriate remote interpretation and captioning has the potential of addressing this need. These services are referred to as on-line remote interpreting and captioning in improved educational environments.

At the Summit, the 50 selected leaders will be divided into 6 constituency groups based on area of expertise, involvement, and experience. There will be no more than 8 persons in each group. Each group will be responsible for discussing the benefits and challenges associated with creating an on-line remote interpreting and captioning infrastructure specific to the stakeholder population in which they represent. The six stakeholder populations include:

- **Students**
  Those studying in mainstreamed STEM programs at the undergraduate and graduate levels;

- **STEM Faculty**
  Those who teach deaf and hard-of-hearing students while utilizing the new on-line remote interpreting and captioning systems;

- **Coordinators of Support Services**
  Those representing the needs of undergraduate and graduate STEM universities who are knowledgeable regarding the challenges associated with providing effective and efficient delivery of services on a continuing basis;

- **Educational Captioners and Interpreters**
  Those with sufficient experience to represent issues of quality of service and technical challenges associated with offering their services remotely;

- **Educational, Linguistic, and Sign Language Researchers/Developers**
  Those with sufficient experience in deaf postsecondary education, and have a proven history of conducting meaningful research and evaluation efforts in the field of classroom communication and support; and

- **Cyberinfrastructure Specialists**
  Those representing cyberinfrastructure, networking, user interface, and video technologies. These individuals will offer a perspective on the state of cyberinfrastructure as it applies to the delivery of remote interpreting and captioning systems within a postsecondary environment.

In addition, two funding source representatives will observe the discussions and offer perspectives related to potential work products.

**Plan of Execution**

- Co-facilitators will be recruited, at least nine months prior to the Summit, for each of the six working teams representing the constituency groups identified above. The co-facilitators will be responsible for preparing an outline/talking points or a brief state-of-the-art working paper to set the context for the activities and outcomes expected from the Summit for his/her constituency group. These outlines and/or working papers will provide a definition of needs of each group, the current situation with regards to remote services, potential benefits of cyberinfrastructure system, and associated challenges.
• In addition to the co-facilitators, six other leaders/members will be recruited for each of the six constituency groups. These selected leaders/members will receive copies of the outlines and/or working papers prior to the Summit.

• All logical planning will be completed at least two months prior to the Summit. The Summit team (Clymer, Diaz-Herrera, DeCaro and Ladner) will:
  < Create conference narrative and information;
  < Develop overall calendar for speakers and participants;
  < Specify presentation and communication technology support (interpreters, assistive listening technology, real-time captioning services, etc.);
  < Develop management databases and establish travel and budgetary systems;
  < Create Summit web page (Wiki); and
  < Arrange housing and venue space.

• The Summit will be three working days in duration:

  < Facilitators Pre-Summit Meeting – Wednesday, June 25, 2008 from 4:00 - 7:00 PM in Golisano Building 70, Room 1400

  Summit plans, logistics, and unresolved issues will be addressed in preparation for the two full day working team meetings.

  < Group Meetings to Present White Papers – Thursday, June 26, 2008 from 8:00 AM – 9:00 PM in Golisano Building 70, Room 1400

  After a brief welcome, each of the working groups will meet as a panel in the presence of all other Summit participants. The co-facilitators will lead discussions among the panel members using their outlines/talking points or white paper for that team as a catalyst for articulating the potential benefits and challenges of creating an on-line remote interpreting and captioning infrastructure for that constituency group. At the conclusion of each group session, other participants will be invited to comment (8:00 AM – 5:00 PM – lunch will be brought in.)

  Participants will then be asked to breakout into their working groups (closed sessions) to draft recommendations of the major issues and challenges associated with the development of the new on-line remote system from their respective constituency group (5:00 – 9:00 PM until completion – dinner will be brought in).

  < Group Meetings to Present Recommendations – Friday, June 27, 2008 from 8:00 AM – 3:00 PM in Golisano Building 70, Room 1400

  The co-facilitators of each team will present their group’s recommendations, in sequence, to the entire Summit gathering, with all members participating in discussions (8:00 AM – 3:00 PM – lunch will be brought in).
Facilitators to meet to discuss key points that should be included in the summary report.

- Within 90 days of the conclusion of the Summit, a first draft of the proceedings will be shared with all participants for review and feedback.

- An evaluation report regarding the Summit will be submitted to funding agency within 120 days of the conclusion of the Summit.

Attached please find a time line of the tasks leading up to, during, and following the Summit.

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
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<tbody>
<tr>
<td>June 25-27, 2008</td>
<td>Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing Individuals in STEM (DHH Cyber-Community)</td>
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<td>2008 June 25 Facilitators Pre-Summit Meeting from 4:00 – 7:00 PM</td>
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<td>2008 June 27 Group Meetings to Present Recommendations 8:00 AM – 3:00 PM</td>
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<tr>
<td></td>
<td>2008 June 27 Facilitators Post-Summit Meeting 3:00 – 6:30 PM</td>
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<tr>
<td>September 15, 2008</td>
<td>Final Summary Report/Recommendations</td>
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If you have any questions about the Summit, please do not hesitate to contact one of the Summit Organizers listed below. Thank you for your consideration.

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