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Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing  
Individuals in STEM (DHH Cyber-Community)

June 25-27, 2008

<http://www.ntid.rit.edu/cat/summit>

*Educational, Linguistic & Sign Language Researchers/Developers Group*

***Talking Points***

*As of June 16, 2008*

***Rough DRAFT***

**Background/Problems:**

1. Historical Sketch: IDEA, its impact on separate vs. mainstream education for d/hh students, and visual technologies traditionally employed in those settings
2. Increasing d/hh enrollment at mainstream colleges/universities, effects on services and costs
3. Often no standardized signs for advanced STEM topics, effects on learning and employment
4. Isolation and communication barriers in mainstream education, effects of cyberinfrastructure

**Possible “Categories” of Research Questions and Likely Audiences**

1. Utilization and benefits of cyberinfrastructure: educational, linguistic, cognitive (and perhaps child development) researchers/developers
2. Needs and preferences: students, stem faculty, support services coordinators, cyberinfrastructure geeks
3. Technology, implementation, alternative business models: support services coordinators, educational captioners and interpreters, educational administrators

**Immediate Research/Evaluation Questions:**

1. What is the current technological “state-of-the-art”?
2. Readiness of current and emerging technology to facilitate and improve remote services?
3. What is the current technological infrastructure and support services capabilities at “typical” universities (and K-12 programs?) where remote services could be deployed?
4. What is the current educational “state-of-the-art”?
5. Student, faculty, and institutional perspectives/willingness to implement technological solutions to communication issues (including student self-identification)?
6. Need for student and/or faculty training to utilize cyberinfrastructure effectively?
7. Student preferences vs. actual educational performance with different systems?
8. Potential advantages/disadvantages for hearing students?
9. Impact on classroom dynamics when remote system is deployed?
10. Applications of remote systems within traditional classrooms, blended learning and other group interactions?
11. The roles of the student, STEM faculty, and service providers in ensuring technical, communication, and educational success with remote systems.

12. What should be included in a “Best Practices” manual? Should there be different manuals for different audiences?
13. What elements should be incorporated in a Business Model to ensure long-term implementation and cost effectiveness of remote services?

**Research Directions:**

1. Long-term costs and benefits of technological solutions
2. Social or literacy effects of technologies in the classroom?
3. Effects of cohort differences in technological savvy
4. Advantages and disadvantages of synchronous vs. asynchronous services
5. Supporting collaboration within the classroom
6. Supporting multi-person discussion in the classroom (group work/study, discussion, labs)
7. Supporting instructor "buy-in" and "buy-out" - for instructors interested (or uninterested/unaware) in modifying pedagogy to be more accommodating
8. Terminology/language for ASL and STEM – possible technological solutions (and dead-ends)
9. Interpreter/captionist training and advancement in STEM (different issues?)
10. Transition programs for students from low-tech to high-tech environments
11. Remote mentoring, remote support, not just remote accommodation
12. Enhanced captioning (including graphics, diagrams, spatially important text)
13. Automatic speech-to-text (not ready for prime time?)