The Postsecondary Education Network-International (PEN-International) is a program that is housed at the National Technical Institute for the Deaf at Rochester Institute of Technology in the USA. Since 2001, NTID has received more than $4 million in grants from The Nippon Foundation of Japan to support PEN-International.
1. I would like to start by recognizing my good friend Judy Heumann who I have known and respected for years. I would like to express my gratitude to her for all her outstanding contributions through the years.

2. I would like to chat with you a bit about the National Technical Institute for the Deaf at Rochester Institute of Technology and the Postsecondary Education Network-International.

3. Rochester Institute of Technology was founded in 1829 and is situated on a 1,300 acre campus. A total of 15,300 students including 12,800 undergraduate and 2,500 graduate students.

4. NTID is one of the eight colleges of RIT and is the home of PEN-International.

5. PEN-International is a program of NTID funded by more than $5 million in grants from the Nippon Foundation. Dr. DeCaro will talk more about PEN-International.

6. I trust you will find this seminar to be of use to you in your work.

7. The seminar is intended to be a time for us to all learn from each other --- so, I look forward to significant repartee between and among participants.
Introduction to NTID

- Public Law 89-36 – National Technical Institute for the Deaf Act
- Postsecondary Program for Technical Education of Persons Who are Deaf
- Babbidge Report

8. I would like to provide a brief introduction to NTID as a context for further discussions:
   a. NTID was established by the Act of Congress, Public Law 89-36 (National Technical Institute for the Deaf Act). It was signed into law by President Lyndon B. Johnson on June 8, 1965.
   b. The law authorizes the Secretary of Education (formerly Health, Education and Welfare) to enter into an agreement with an institution of higher education for the establishment of a postsecondary program for the technical education of persons who were deaf.
   c. P.L. 89-36 was the result of a national study (The Babbidge Report) that was submitted to HEW in February 1965. It was found that USA had been seriously under-represented in the ranks of technical and professional occupations. There had been a dearth of programs in the USA for deaf people in technical and professional disciplines such as engineering, business, science and the arts.
RIT Chosen for NTID in 1967

- Only Site with “Mainstreamed” Plan
- Ties to Business & Industry
- An Established Cooperative Education Program

d. In 1967, Rochester Institute of Technology was awarded the contract to establish NTID on its campus in Rochester, New York. By choosing RIT, the Federal Government of the USA had selected a campus that had been designed predominately for students who were hearing. They had selected a technical institute that had strong ties to business and industry. RIT was known for preparing graduates to work in technical and professional occupations.

e. One of the major reasons for selecting RIT as the host university was that RIT had (and continues to) have a very strong Coop program in which students alternate between study blocks and work blocks so that by the time they graduated they would have both an academic degree and substantial work experience. Placing NTID on the RIT campus was the first major attempt in the USA to provide deaf people with the opportunity to live and study with their hearing peers.

f. The mission of NTID is to prepare deaf people to live and work in the mainstream of a rapidly changing global community and enhance their lifelong learning.
g. NTID is one of eight colleges of Rochester Institute of Technology. At RIT, over 1,100 deaf and hard of hearing students study and live with more than 15,000 students who are hearing. These deaf students either study at NTID with their deaf peers or in one of the other colleges of RIT with their peers who hear.

h. Approximately 58% of the deaf students who attend RIT study for associate degrees within the college of NTID. In these programs, students are educated to become technicians and paraprofessionals. Faculty members from NTID teach these students directly using American Sign Language and English. In addition, these faculty members utilize various educational and instructional technologies in the teaching and learning processes.

i. The other 42% of the deaf and hard of hearing students at RIT are mainstreamed into one of other seven colleges with their peers who hear. The faculty in seven other teaches these deaf and hard of hearing students. Support services including interpreting, notetaking and tutoring are provided to these students.

j. For example, NTID provided approximately 90,000 hours of interpreting services in the last academic year. More than 100 full time sign language employed by NTID provided these services. NTID also provided more than 45,000 hours of notetaking services. Almost 15,000 hours of tutoring was provided to deaf and hard of hearing students enrolled in other colleges of RIT.

k. As you can see, NTID at Rochester Institute of Technology is unique in terms of providing a range of educational opportunities to deaf and hard of hearing students. They have the option of studying and living with deaf and hard of hearing students only, with a mix of deaf and hearing students, or with hearing students only.

9. Thank you, for the kind invitation to join you for this seminar. I will now turn the floor back over to Jim.
The Nippon Foundation is a grant-making organization based in Japan that provides financial assistance for activities that they determine can improve the quality of living of people around the world. Their assistance is extended in such fields as healthcare, agriculture, education and disability.

The Nippon Foundation’s support for deaf education began with supporting deaf or Hard-of-Hearing students from developing countries to study in the United States.

In 1993 and 1994 The Nippon Foundation invested $2 million dollars to establish the Sasakawa Scholarship Fund for students from developing countries. However, the history of such scholarships proved somewhat problematic since a large number of the students who receive such scholarships do not return home and thus there is a drain of the best and the brightest.

When the foundation was approached by then director Davila for additional scholarship funding they declined indicating that they would prefer to find a mechanism to support deaf students in their home country and improve the postsecondary education in their home country.

As a result I prepared a concept paper (with input from Alan Hurwitz, Jeff Porter and Bob Davila) that proposed that NTID establish an international postsecondary education network. This paper was presented to The Nippon Foundation during the ICED Conference in Australia in 2000 by me and Bob Davila. With their encouragement, I expanded this paper into a five-year project proposal that was submitted to The Foundation for funding and subsequently approved by the board of directors in 2001. The program officially started on 1 March 2001.

The reason given by The Foundation for its involvement with PEN-International is, “to provide a support structure that is closer to home……we have provided support in the form of scholarships that enable deaf or Hard-of-Hearing students in developing countries to study in the United States. But while this approach finances a lucky few of deaf or Hard-of-Hearing students to study in the United States, countless others have been left behind. These students have been unable to obtain post-secondary education of satisfactory quality in their home countries. This led us to question whether there shouldn’t be a local support for deaf or Hard-of-Hearing.”

As a result, The Foundation found our proposal to develop an international network to improve postsecondary education for deaf students to be of sufficient interest to fund PEN-International.
Grant History

- 2001 $911,700
- 2002 $1,169,700
- 2003 $1,198,600
- 2004 $1,267,700
- 2005 $1,279,300 (proposed)

Total $5,827,000
Key delegates from universities in Russia, Japan, China, and NTID/RIT signed a resolution committing to excellence, integrity and innovation to begin a unique, collaborative network to improve high-tech education and career options for their deaf residents. The signing of the resolution on 29 June 2001 marked the official start of PEN-International.
Internationally, there are a limited number of postsecondary education programs for people who are deaf or hard-of-hearing (Brelie, 1999) but more countries are developing programs and services. To a great extent these institutions have worked in relative isolation.

This lead us to seek ways in which it might be able to serve as a catalyst and facilitator to improve the postsecondary education of deaf people around the world—particularly in developing countries and establish three primary goals (read goals).
The overarching vision for PEN-International is to provide an international network that enhances and maintains local capability and global networking at each participant postsecondary institution.

Overall institutions are moved from importers of ‘know how’ to self-sufficiency. As the project progresses, each institution develops the capability to export what has been learned to other postsecondary institutions in their respective countries serving students who are deaf and hard-of-hearing. In effect, we move institutions from importer to self-sufficiency to exporter.

This general model applies to all participants in the network. By this I mean, an institution that has a particular expertise might serve an exporter of know how to other institutions while at the same time importing know how in which it is lagging. Eventually, each participant becomes the major exporter of know how within its home country.

NTID serves as the catalyst/facilitator for the international network. Each of the other participant institution are nodes on the international network. The network serves as an innovation-dissemination vehicle for improving the postsecondary educational circumstances of people who are deaf and hard-of-hearing. In effect, the network fosters an educational ripple effect.

Form the outset, we determined that we would work to address locally defined needs and never impose solutions on participant organizations. A fundamental operating principle has been as follows: “All participants work in partnership to determine solutions that meet local needs.”

Each institutional partner is becoming a center of excellence in their home country.
There are four major components to the PEN implementation strategy:
(read 4 components)

- Needs Assessment
  - PEN-International Philosophy
  - Local Determination of Needs
  - Instructional Technology
  - Curriculum Issues
  - Deafness!!
  - How Business is Conducted at NTID

- Faculty Development
  - Professional Development Model
  - Sound Instructional & Technology Practice
  - On-going

- Multimedia Computer Centers
  - Faculty Development of New Skills
  - A Teaching Classroom and Student Lab with High Technology
  - Video Conferencing
  - Receive & Use Online Learning Resources

- Online & WWW Resources
  - PEN-International Materials on WWW
  - All Workshop Materials on WWW
  - Videoconferencing Employed for Training & Communication
  - PEN-International Web Pages

- Evaluation & Research
  - Levels of Impact
  - All Training, Exchange and Cultural Activities
Presently there are nine institutional partners in 7 different countries. They are: (read the partners)

- NTID (USA)
- Tsukuba College of Technology (Japan)
- Tianjin University of Technology (China)
- Beijing Union University (China)
- Changchun University (China)
- DLSU College of St. Benilde (Philippines)
- Bauman Moscow State Tech University (Russia)
- Charles University (Czech Republic)
- Ratchasuda College (Thailand)
National Technical Institute for the Deaf (USA)

- Established in 1968 on the campus of RIT
- 1250 Students
- 475 Faculty/Staff

NTID is the home of PEN-International. Parenthetically, you will most likely note that most of the program components of PEN look familiar to you and well they should. Many are borrowed and stolen from interventions NTID put into place during the 14 years that I was dean for the college and before. In effect, PEN capitalizes on the more than three decades of experience educating students who are deaf and hard-of-hearing.
The Government of Japan chartered Tsukuba College of Technology in October 1987 by amending the Japan Law for Establishing National Schools. In April 1990, the first class of deaf students entered the college. One year later, the first class of blind students entered the college. The Division for Hearing Impaired provides state-of-the-art curriculum in design, mechanical engineering, architectural engineering, electronics and information science. Currently there are approximately 200 students who are deaf enrolled at TCT.

BMSTU has been educating deaf students since 1934. In the early 1990’s, university administration determined to expand programs and services for deaf students and established the Center on Deafness. Presently, approximately 250 students study in various programs across the university as well as in compensatory programs at the Center on Deafness.

Tianjin Technical College for the Deaf of Tianjin University of Technology is the first technical college for the higher education of people who are deaf in China. Established in 1991 and modeled after NTID, the college enrolls students from throughout China. Presently, more than 125 deaf students study technical disciplines that prepare them for productive membership in Chinese society.

TUT jointed PEN in 2001
Beijing Union University (China)

- University
  Established in 1985
  - Deaf Program in 1999
- Serves about 125 Deaf Students

Beijing Union University (BUU), founded in 1985, is a multidisciplinary institution offering humanities, science, social science, natural science, technological science, and management science programs to 12,000 students. The University’s Special Education College was created in 1999 and serves more than 125 deaf students who study art design, decorating and advertisement, gardening, and office automation.

The Special Education college jointed PEN in 2003
Changchun University’s Special Education College was established in 1987. It is the oldest and largest postsecondary program for disabled students in the People’s Republic of China. The college currently enrolls more than 200 deaf and hard-of-hearing students who study in the college’s fine arts and graphic design programs. Graduates of the college are competing successfully in the workplace.

On 9 January 2004, the PEN Multimedia Facilities were officially dedicated at the Special Education College of Changchun University. The university is the newest member of the PEN family in China and houses the oldest postsecondary education program for people who are deaf.

The Special Education College joined PEN in 2003.
De La Salle College of Saint Benilde (Philippines)

- Deaf Education Program part of College of Saint Benilde
- Serves About 150 Students

The SDEAS is one of the schools of DLSU College of St. Benilde in Manils. Its vision is to be a leader in education for the Deaf by offering programs that are responsive to their needs; conducting research on innovative strategies for their holistic development; establishing international linkages; and empowering them by preserving Deaf heritage and nurturing Filipino Deaf culture.

CSB jointed PEN in 2002.
Thailand’s Ratchasuda College of Mahidol University is the first and only education institution in Southeast Asia dedicated to providing tertiary education for deaf men and women. The College, created in 1991, consulted with worldwide leaders in education of deaf students in formulating its curriculum. Ratchasuda College enrolls 89 students who are deaf.

Presently it is a PEN affiliated not yet a full partner.
Charles University (Czech Republic)

- Students Mainstreamed
- Serves Approximately 120 Special Needs Students; 24 Who are Deaf

The Czech Republic’s Charles University in Prague is the oldest university in central Europe. Founded in 1348 by King Charles IV, the University enrolls 41,000 students at the bachelor’s, master’s, and doctoral levels. Among the University’s population are 120 students with special needs, including 24 students who are deaf.

Charles University is currently an affiliate program.
Distance from Rochester NY

Up to 14 hours difference in times

Rochester to Bangkok = 8506 Miles
Rochester to Manila = 8284 Miles
Rochester to Beijing = 6646 Miles
Rochester to Tokyo = 6518 Miles
Rochester to Moscow = 4644 Miles
You may be wondering what we use as the criteria for selecting a program to become a PEN partner institution. There are five: (state each). The partners have all five and our affiliates are lacking on one or more.
I would like to now review each of our four implementation strategy in turn. First is training and faculty development.
PEN is in reality an international faculty development program: this is, it aims to impact upon curriculum, teaching and learning through development of educational and instructional technology skills by faculty who teach students who are deaf.

As I indicated previously, we do not impose solutions but develop interventions on the basis of a needs assessment conducted in partnership with each of our PEN institutions. The interventions are designed to meet the specific needs defined in country.

Workshops and training materials are designed to meet those needs and these workshops are objective and outcomes based. PEN uses highly competent and proven educators to develop these workshops—in effect we have teachers teaching teachers.

Of course, all our interventions are carefully evaluated.
PEN draws upon NTID’s best and brightest to develop our workshops. In every instance, we compensate them to do so as they develop these on their own time outside of their contractual obligations to NTID. In addition, we offer the workshops in the USA and in other countries during vacations and quarter breaks and compensate faculty for doing so. In this way we don’t distract from the NTID’s primary mission of educating students of the college. In effect, PEN provides our best and brightest the opportunity to share their knowledge and skills with faculty members from other countries and also provides them the chance to expand their understanding of deaf education around the world.

As a result, PEN provides faculty development opportunities for NTID’s faculty and staff.

The list presented on this slide shows only a few of the ___ workshops in our PEN library.
### Faculty Development – Selected Accomplishments

- Instructional Technology Symposium, NTID, June 2003 – All Partners (20)
  - Videoconference (75)
- Training at CSB in 2003 – Philippine institutions (11)
- PEPNet Conference, Apr 2004, All Partners (22)


Shown on this slide are four selected workshops offered for or by PEN partners.

The general strategy we use in our training is as follows:

- We train selected partner faculty member sin the USA
- We do follow-up training of those faculty members in the home country
- The faculty members we train, train faculty members from their home institution in what they have learned with our support
- The faculty members train faculty from other institutions in their home country

I will highlight the work being done by CSB to train their own faculty members and to train faculty from other institutions.

PEN contracted with Dr. Bernardo of De La Salle University to develop a series of modules on learner centered education. CSB’s self assessment had identified this as an area for faculty and staff development. Subsequently in 2003 (and continuing into 2004), a series of modules were developed and offered to faculty from CSB and other institutions in the Philippines that serve students who are deaf. This page on the PEN WWW site provides a summary of the training and the evaluation of the first module. This binder contains the first module.
There are four major components to the PEN implementation strategy:
(read 4 components)

- **Needs Assessment**
  - PEN-International Philosophy
  - Local Determination of Needs
  - Instructional Technology
  - Curriculum Issues
  - Deafness!!
  - How Business is Conducted at NTID

- **Faculty Development**
  - Professional Development Model
  - Sound Instructional & Technology Practice
  - On-going

- **Multimedia Computer Centers**
  - Faculty Development of New Skills
  - A Teaching Classroom and Student Lab with High Technology
  - Video Conferencing
  - Receive & Use Online Learning Resources

- **Online & WWW Resources**
  - PEN-International Materials on WWW
  - All Workshop Materials on WWW
  - Videoconferencing Employed for Training & Communication
  - PEN-International Web Pages

- **Evaluation & Research**
  - Levels of Impact
  - All Training, Exchange and Cultural Activities
State-of-the-art multimedia labs have been established at each PEN partner institution. These labs are used to support student learning and also to support development of instructional materials and interventions by faculty members.
Lab Specifications

- Smart Classroom Technology
- Display Computer, Video, Objects
- Local Area Network
- 12 -18 Student Computer Stations
- Videoconferencing

The labs are designed so that they can serve as network dissemination nodes in each participant country. The labs consist of the following components: (read from the slide).

The labs have been used for the sharing of expertise within and across network countries.

For example, here is how we used the labs to conduct synchronous training in the Philippines (CSB) and in two institutions in China (BUU and TUT) in 2003.

(hot link to the Doug McKenzie during the Tech SYM)
There are four major components to the PEN implementation strategy:
(read 4 components)

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  - Levels of Impact
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All of our resources and materials are on the WWW and accessible to our partners as well as anyone else who wishes to access them. We have attempted to be as paperless as possible and to make our materials easily available. If you wish to see our web and explore the materials we have there, you can do so by accessing http://www.pen.ntid.rit.edu
There are four major components to the PEN implementation strategy:
(read 4 components)

Needs Assessment
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Evaluation & Research
- Levels of Impact
- All Training, Exchange and Cultural Activities
We have worked to evaluate each of our interventions.
Evaluation & Research

a) Participant satisfaction
b) Participant learning
c) Participant application of the skills learned
d) Quality of the application of the skills learned
e) Impact upon student learning

There are five levels of evaluation we are implementing:

For now we have collected data on the first five levels but have yet to start our assessment of the final level—impact upon student learning.
I have mentioned this previously but it is important enough to be repeated.

Generally speaking, there are four levels of training by PEN-International. Usually, a team for a partner institution is brought to the USA to participate in training that has been designed to meet their respective needs.

This is usually followed by follow-up training that is conducted in the home country either by teleconference, by a live presenter or by a combination of both strategies.

The faculty members so trained are then expected to train colleagues at their home institution. This is usually done with some level of support from experienced trainers.

Once this has occurred, the partner institution initiates training of those who educate people who are deaf at the postsecondary level in other institutions in their country.

In effect, there is a training ripple effect.

The cycle continues to be repeated as new skill sets are being developed. The ultimate goal is to propagate a network within each partner country where the participant institutions are linked together in a cooperative educational collaborative.
Implementation Strategy

- Training & Faculty Development
- Establishment of Multimedia Computer Centers
- Online and WWW Resources
- Evaluation & Research

In addition to these strategies, we are also attempting to impact directly upon students.
Cultural Exchanges

- Student Trips
- Haiku Competition
- WWW Design Competition
- Faculty Exchanges

As a result International cultural exchanges both virtual and in situ are being fostered. These exchanges expose participants to the culture of the other countries and serve to provide participants with an introduction to the technologies used in participant countries. Cultural exchange of students is one way for participant institutions to expose their students to the realities of the world they will face after graduation in a global marketplace.

The underlying philosophy of these exchanges is: to strengthen each participant’s cultural and personal identity while simultaneously helping each develop an understanding of the diverse cultures that shape the global marketplace.

Thus far, four strategies have been implemented to help achieve this end:

READ EACH OF THE FOUR AND SHOW THE LINK FOR a selected one WITH EXPLANATION.

Let me show you an example of the Haiku competition. The results at Haiku were shown on the 2 story screen on the Nippon Foundation Headquarters in the Akasaka of Tokyo Japan.

This comprehensive program consisted of 3 plenary addresses, 38 formal concurrent presentations, 24 poster sessions, 11 commercial exhibits, and various sharing and networking opportunities. In addition, 15 pre-conference workshops were offered that provided participants with hands-on training on the use of instructional technologies in deaf education. Participants were also provided with topnotch entertainment. Three world-famous Japanese Taiko drumming troupes, two hearing and one deaf, appeared at the Symposium courtesy of the Nippon Taiko Foundation.
2005 Symposium!

- June 27-June 30, 2005
- http://www.rit.edu/~techsym

To receive occasional email updates on Symposium 2005, submit your name from the symposium web site.

(Play video)
Future Activities

- Expand Network of Between Countries
- Expand Network Within Each Country
- Continue Training
- Provide Direct Training for Students
- Evaluation, Evaluation, Evaluation

Before Bill and I answer your questions, let me tell you a bit about where we are going. We have just submitted our year five funding plan to the foundation and they have asked for the next five-year plan by 1 January 2005.

In those plans we are projecting to: (read from the slide)
Questions?