

SPRING 2001

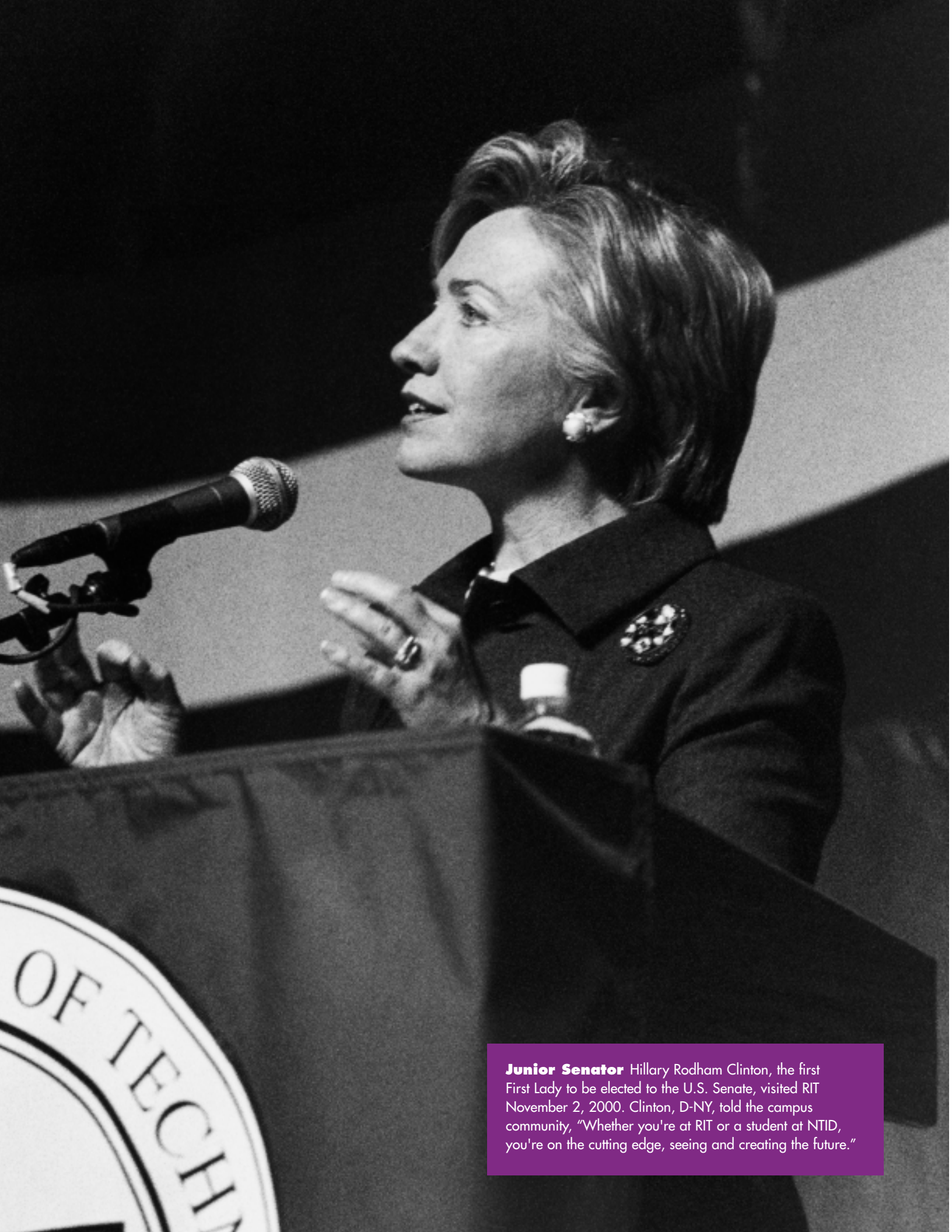
FOCUS

NTID

National Technical Institute for the Deaf • A College of Rochester Institute of Technology



**NTID:
A Global
Experience**



Junior Senator Hillary Rodham Clinton, the first First Lady to be elected to the U.S. Senate, visited RIT November 2, 2000. Clinton, D-NY, told the campus community, "Whether you're at RIT or a student at NTID, you're on the cutting edge, seeing and creating the future."

S P R I N G 2 0 0 1

FOCUS

NTID

National Technical Institute for the Deaf • A College of Rochester Institute of Technology

FEATURES

- 3** In Good Company: NTID and the Fortune 500
-
- 7** International Students Bring the World to NTID
-
- 10** A Phone of Our Own:
NTID pioneers in the telecommunications access story
-



ABOUT THE COVER

International deaf students at NTID come from all hemispheres of the globe and greatly enrich the RIT campus community. From left to right are Anthony Manion from Australia, Sospeter Oloo from Africa, and Quing Quan from China. Read the article on pp. 7-9.

Image of globe:
© 2001 PhotoDisc, Inc.

DEPARTMENTS

- 2** Bob's Bulletin: Quality of Secondary Education of Deaf and Hard-of-Hearing Students
-
- 14** Alumni Profile: Tonia Fehrenbach
-
- 15** Alumni Profile: Marcus Holmes
-
- 16** Profiles in College
-
- 20** Faculty Leaves Enhance the College Experience
-
- 23** Staying the College Course
-
- 26** James F. X. Payne
-
- 27** Gracie Coleman
-
- 28** Peter Thorp
-
- 29** Dr. Olga Michele Welch
-
- 30** Teachers Teaching Teachers:
NTID's Instructional Technology Consortium
-

FOCUS

NTID

Editor

Kathryn L. Schmitz

Writers

Karen E. Black
 Pamela L. Carmichael
 Shane Feldman
 Frank A. Kruppenbacher
 Susan L. Murad

Art Director

Colleen Clarke,
 RIT University Publications

Photography

Mark Benjamin—pp. 5–6, 13,
 24–25, 28–29

Michael Conway—p. 5

Courtesy of National
 Association of the Deaf—p. 13

Darunee Sa-Areddee—p. 22

Courtesy of Sally and Paul Taylor—pp. 11

A. Sue Weisler—FC, IFC, pp. 3–4, 7–8,
 14–21, 23, 25, BC

FOCUS is published by the Marketing Communications Department at the National Technical Institute for the Deaf, a college of Rochester Institute of Technology, Rochester, New York. The views expressed in guest columns do not necessarily reflect the position of NTID or *FOCUS* magazine.

RIT will admit and hire men and women, veterans, and persons with disabilities of any race, creed, religion, color, national or ethnic origin, sexual orientation, age, or marital status, in compliance with all appropriate legislation.

Marketing Communications

(716) 475-6906 (voice or TTY)
 (716) 475-5623 (fax)
 NTIDMC@rit.edu (e-mail)
 www.rit.edu/NTID (World Wide Web)

Recruitment and Admissions

(716) 475-6700 (voice or TTY)
 (716) 475-2696 (fax)
 place4u@rit.edu (e-mail)

The NTID Foundation

(716) 475-6836 (voice or TTY)
 (716) 475-5949 (fax)
 www.rit.edu/NTID/foundation
 (World Wide Web)

Quality of Secondary Education of Deaf and Hard-of-Hearing Students

Well-trained and credentialed teachers are essential to successful educational systems. This is especially true in the field of education of students who are deaf and hard of hearing, where we are experiencing an acute shortage in secondary schools. The demand for certified secondary-level content teachers exceeds the supply, a circumstance that NTID has been working for years to help correct.

As part of its mission “to impact positively on the quality of education for the deaf throughout the United States,” NTID has made significant strides to assure that deaf and hard-of-hearing students receive a good education. Although NTID’s target population for recruitment purposes rests within the ranks of students who have completed or are about to complete high school, the Institute works extensively with secondary school students and their teachers. It does this through an active program of technical assistance and through the work of the graduates from its Master of Science Program in Secondary Education of Students Who are Deaf or Hard of Hearing (MSSE). This column will focus on this graduate program, which may not yet be widely known, but which has been highly successful.

NTID’s efforts to improve the quality of secondary level teaching began in 1980, when the college joined the University of Rochester to launch the first joint master’s degree program in New York State: the Joint Educational Specialist Program (JESP). This program was developed in direct response to the critical lack of professionals adequately prepared to work with deaf students at the secondary school level. In 1995,

NTID made significant modifications to the program and assumed full responsibility for it, renaming it the Master of Science Program in Secondary Education of Students Who are Deaf or Hard of Hearing.

MSSE is a demanding two-year program designed and taught by experienced and highly qualified NTID/RIT professors. Students take part in a variety of course work, field experiences, practicums, independent projects, and technical skills development activities that have been successful in instilling the combination of competence and confidence required for successful teaching service. MSSE students gain opportunities to work with many NTID faculty and staff members as well as with other professionals in the Rochester community. Rochester’s large deaf community, numerous mainstream programs in the area, and the presence of the Rochester School for the Deaf collectively offer a valuable base of resources for learning, working, and collaborating.

Successful completion of the MSSE program leads to dual certification: one in a secondary-level content area and the other as a teacher of students who are deaf or hard of hearing. As a former high school mathematics teacher, I can attest to the importance and the value of not only being able to communicate directly and effectively with my students, but also being able to teach them the fundamentals of my content area. We see evidence from incoming freshmen that they need stronger backgrounds in basic content areas, including English, mathematics, and science. This circumstance is undoubtedly associated partially with the lack of certification on the



Dr. Robert Davila, left, chats with Sarah Bienias, a 2001 graduate of the MSSE program from Lowell, Mass.

part of their teachers. By completing their master's degree in the Secondary Education program at NTID, teachers begin their professional careers with excellent credentials and position themselves to make very important contributions to the education of future generations of deaf and hard-of-hearing students.

We have had many outstanding graduates from the MSSE program whom, I am proud to report, are making their mark in the teaching profession. They are proving that they can be successful in a variety of teaching situations. In fact, graduates of the program are finding career placements in all areas of the country in both mainstream environments and traditional programs for the deaf.

One example is Cari-Ann Clum Christensen, who now teaches deaf students in the Broome-Tioga Board of Cooperative Education Services (BOCES) program in Binghamton, N.Y. Cari-Ann, who graduated from the MSSE program in 1997, received the Michelangelo Award for Innovation in Teaching, an award given by BOCES for which her supervisor nominated her.

Another outstanding graduate is Lori Niemann, who earned her

teaching certification during the 1998-99 academic year while studying for her master of science degree in industrial engineering at RIT. In both programs, she held down an impressive grade point average, and now she is regarded as an excellent teacher in her second year of teaching. Lori, who happens to be deaf, teaches physics, chemistry, physical science, algebra, and pre-algebra to high school students at the Iowa School for the Deaf.

One international graduate of the MSSE program in 2000, Jun Hui Yang, has great ambition. She is one of the first, if not the first, deaf graduates of a baccalaureate program in China. She now is a doctoral student at Gallaudet University, and her plans are to return to her home country and establish an interpreter training program.

Michael Haddix, another 2000 graduate, currently works with the Monroe BOCES #1 program in the Education of the Deaf Department, serving in two different roles. He teaches American Sign Language to seniors at Pittsford Mendon and Sutherland High Schools in the Rochester, N.Y., area. He also works individually with two deaf students at two different high schools.

Matt Boyd is a high school teacher with the Brazos Valley Regional Day School for the Deaf in Bryan, Texas.

His duties include teaching English, algebra, sciences, and government/economics to deaf students who are not mainstreamed for those courses, writing individual education plan (IEP) goals and attending IEP meetings for all of his students, and working on the team that plans transition for graduating seniors. Matt also assists in overnight field trips for students to visit colleges and attend special deaf culture functions. According to his supervisor Connie Ferguson, he "gives of himself, works very hard, and is knowledgeable and well prepared."

Pam Hatch, principal of the Rochester School for the Deaf (RSD), reports great satisfaction with the caliber of the MSSE graduates who have entered service at RSD. According to her, the MSSE program offers a much-needed training program for secondary level teachers, and she feels that RSD is fortunate to have a source of prospective teacher candidates so close by.

Cari-Ann, Lori, and Michael are just three examples of MSSE graduates who are making a difference in the education of young deaf and hard-of-hearing students in schools throughout the United States. My hope is that they will become change agents within their schools and influence others to adopt similar teaching techniques, strategies, and attitudes.

If you'd like more information about the MSSE program, contact Dr. Gerald Bateman, chairperson, at (716) 475-6480 (voice/TTY) or gcbnmp@rit.edu. Our Web site: <http://www.rit.edu/~437www/> provides details about the program as well.

In Good Company:

NTID and the Fortune 500

By Susan L. Murad

While NTID may not seem like a name synonymous with Wall Street movers and shakers, a look at the top companies from the Fortune 500® list proves that the college has made some very impressive connections.

More than one-third of the top 100 on the list have developed partnerships with NTID, providing the college with cooperative work experiences, graduate employment, gifts of equipment and technology, scholarship assistance, and the time and talents of individuals who work for them.

Enhancing opportunities at Kodak

Allen Vaala, formerly director of university relations and college recruiting for Eastman Kodak Company and now director of NTID's Center on Employment (NCE), considered his original contacts with NTID to be part of the ongoing relationship between the

photo giant and the greater RIT university. That was until he met Linda Iacelli, NCE employment advisor, and attended a session of the employer workshop "Working Together: Deaf and Hearing People."

"I attended Working Together and found it was very well done," Vaala says. "I learned a lot and realized that it really is not difficult to work with a deaf or hard-of-hearing hire. Kodak and other companies are looking for top high-tech workers who must be computer literate in all fields. The majors that NTID has in computer-related fields strengthen the college's ability to produce the kind of graduates employers are looking for. After working with Linda I vowed that I wanted to enhance opportunities for all companies to work with NTID graduates."

While at Kodak, Vaala wanted to hire deaf and hard-of-hearing students in two-year, four-year, and master's programs. As a result, three co-op students worked with two different supervisors that summer. Another two

NTID students were hired into Kodak co-op jobs through the Industrial Management Council.

"The supervisors had very positive experiences and didn't find the students' deafness to be a barrier," Vaala explains. "Kodak now has a full-fledged recruitment drive at NTID."

Vaala helped generate excitement about working with NTID students during his tenure at Kodak. In December 2000, the company held its first ever "Kodak Day" at NTID, collecting résumés for full-time, co-op, and intern positions, interviewing, presenting technical demonstrations, and giving prizes.

"In the future, people with disabilities who also possess high tech skills will be tapped more and more," says Vaala. "Kodak has found a wealth of talent at NTID right in their own backyard. The top people companies are looking for are right here. It's a win-win situation any way you look at it."

In addition to employment opportunities, Dr. Mary Jane Hellyar, general manager of Consumer Film Business, Consumer Imaging, and vice president for Eastman Kodak Company, has joined The NTID Foundation Board of Directors.

"I am very impressed with the record of NTID and the impact it has had on students' lives," Hellyar says. "Looking to the future, the fast pace of technology innovation will provide NTID with significant opportunities to continue to make a difference."

Interaction leads to dedication

For Becky Mark, technical manager at Lucent Technologies in Naperville, Ill., a first interaction with deaf co-workers led to personal and company-wide dedication.

"Back in 1989 I was a technical peer



Get the picture? Fourth-year digital imaging & publishing technology student Kevin MacFarland gets career advice and a camera from Allen Vaala, former director of university relations and college recruiting for Eastman Kodak Company and now director of NTID's Center on Employment, at the college's first "Kodak Day." RIT Interpreter Patricia Gates facilitates the conversation.



Corporate commitment Becky Mark, second from right, chats in sign language with deaf co-workers, from left to right, Rodney Dinkins, Mike Botte, Gary Etkie, and Todd Hlavacek. Lucent Technologies encourages interaction among deaf and hearing workers.

mentor to a deaf colleague, and that began my journey into developing a dedication to hiring talented deaf and hard-of-hearing workers at Lucent,” she says. “Since 1989 I have had deaf peers, and now I’m a manager of deaf and hearing employees in my group.”

Among those deaf employees are three NTID/RIT alumni — Mike Botte ('90), Todd Hlavacek ('96), and Gary Etkie ('77).

“I began learning sign language in 1989 and enjoyed it so much I went back to school and passed the interpreter training program,” Mark says. “I am fluent in sign language and can interact one-on-one with my deaf group members. Of course, for group meetings, we work with an interpreter.”

The Naperville facility — Lucent’s largest, with more than 11,000 employees — ensures that all major meetings have an interpreter present.

“There is a true demonstration of accessibility here at Lucent,” says Mark. “We have one full-time staff interpreter and a number of contracted interpreters at any given time. We work hard at making sure deaf people are not left out of the process.”

Not only is Lucent ensuring that deaf people are not left out, the company has taken steps to educate hearing colleagues about deafness through DeafNet, an organization of deaf and hearing employees that sponsors courses in American Sign Language and deaf culture that can be taken on

company time throughout the workday.

“To date, more than 500 employees have taken courses through DeafNet,” says Mark. “This commitment of our employees and the company’s sponsorship of the courses has helped to improve communication both in work-related and social situations for our people.

“In the future we will continue to partner with NTID. We have found that the students and graduates we’ve hired as co-ops, interns, and full-time employees are motivated, hard-working, and great contributors to Lucent. With the technology world changing and advancing, it would be great to see

more positions open to deaf and hard-of-hearing people.”

Xerox’s four-tiered partnership

Xerox Corporation’s proximity to RIT in Rochester, N.Y., has led to partnerships in four major areas of NTID — employment, equipment, scholarship, and personal commitment. Employment of NTID graduates and co-op students by Xerox has been a mainstay for many of the technical programs offered by the college. Equipment donations by The Document Company® have helped NTID stay on the cutting edge of technology in a number of programs such as Digital Imaging & Publishing Technology and in the newest NTID program, Computer Aided Drafting Technology.

“Scholarship and equipment support are critical to the success of our students,” says Dr. Robert Davila, RIT vice president for NTID. “Our friends at Xerox have understood these priorities and have partnered with us to provide both. As a result, we are able to produce highly trained graduates, many of whom can walk into a company and work on equipment they have already used in classrooms or labs.”

In addition to assistance at the corporate level, two members of Xerox’s leadership have invested personally in NTID by serving on The NTID



High-tech know-how Through the use of donated high-tech equipment such as the Xerox 8830, Computer Aided Drafting Technology Assistant Professor William LaVigne, right, can provide real-world experience for, from left to right, students Napoleon Rogers, James Galvan, and Michael Laing.

The top 100 of the Fortune 500® list for 2001.

Those in past and present partnership with NTID are in **bold**.

Foundation Board of Directors. Frank Steenburgh, senior vice president and world wide general manager, corporate officer of Xerox Corporation's Graphic Arts Business, has served on the board since 1992, and David Kearns, retired chairman of the board of Xerox is the NTID board's first and only honorary member.

"The partnership between NTID and Xerox has proven valuable to both parties," says Steenburgh. "NTID has benefited from the equipment Xerox has donated to the college's High Tech Center, leading to learning that results in placement of students in the graphic arts industry. Xerox has benefited from the support these students bring to Xerox, resulting in placement of Xerox products and solutions in the graphic arts market."

Steenburgh was so impressed with the activities of the college and its mission to keep NTID at the forefront of technology education that he and others at Xerox established the David Kearns Scholarship for Excellence in Technology. The scholarship, awarded annually to an NTID student who demonstrates great promise in a technology area, is in honor of Kearns' pioneering spirit.



Learning to teach Duane Styles, standing, former student of the NTID Master of Science in Secondary Education of Students Who are Deaf or Hard-of-Hearing (MSSE), gains valuable experience as a student teacher at the Rochester School for the Deaf. The MSSE program has benefited from its partnership with the Ford Foundation.

General Motors	Fannie Mae	Lockheed Martin	Bristol-Myers Squibb
WalMart	K-Mart	MetLife Ins.	Sara Lee
Exxon/Mobil	Texaco	Goldman Sachs Group	Fleet Boston
Ford	Merrill Lynch	GTE	Sprint
GE	Morgan Stanley	Dell	Raytheon
IBM	Dean Witter	United Tech	Coca-Cola
Citigroup	Chase Manhattan	Bell South	Microsoft
AT&T	Target	Cardinal Health	Caterpillar
Philip Morris	Bell Atlantic	ConAgra	United Health Group
Boeing	Merck	International Paper	Xerox
Bank of America	Chevron	Freddie Mac	Lehman Bros. Holdings
SBC Communications	JC Penny	AutoNation	Dow Chemical
Hewlett Packard	Motorola	Berkshire Hathaway	Utilicorp United
Kroger	McKesson HBOC	Honeywell International	Electronic Data Systems
State Farm Ins.	Intel	Walt Disney	J.P. Morgan
Sears Roebuck	Safeway	First Union Corp	CVS
American International Group	Ingram Micro	Wells Fargo	UAL
Enron	E.I. DuPont	Duke Energy	Walgreen
TIAA-CREF	Johnson & Johnson	NY Life Ins.	Georgia-Pacific
Compaq	Costco Wholesale	American Express	Federated Dept. Stores
Home Depot	Time Warner	Loews	Sysco
Lucent Tech	UPS	PG&E Corp.	Supervalu
Procter & Gamble	Allstate Ins.	Conoco	Bergen Brunswig
Albertson's	Prudential Ins.	Cigna	
MCI Worldcom	Aetna	PepsiCo	
	Bank One Corp	AMR	
	USX		124. Eastman Kodak

Ford Foundation invests in teacher development

A grant from The Ford Foundation made possible the development of a pilot program for teacher development through distance learning offered by NTID's Master of Science in Secondary Education of Students Who Are Deaf or Hard of Hearing (MSSE).

In aligning with the institute's strategic goal of increasing NTID's impact on teacher development in innovative ways, Ford's grant supports the transformation of one of the core courses in the MSSE program, "Deaf Students: Educational and Cultural Diversity," into distance learning formats that can be effectively delivered as in-service professional development for current teachers or as an additional course elective for students in teacher preparation programs.

"There is a national need for teachers at the secondary level who are capable of effectively teaching deaf and hard-of-hearing students in core subject

areas such as math and science," Davila says.

While The Ford Foundation operates in the philanthropic arena, Joe W. Laymon, executive director of Human Resources in Business Operations of The Ford Motor Company, serves on The NTID Foundation Board of Directors.

"Joe brings a tremendous wealth of knowledge and commitment to the board," says Gracie Coleman, chairperson of the foundation board. "We are fortunate, indeed, to have him as part of our organization."

These are just a few examples of the many partnerships between NTID and the leading organizations in the world. Their commitment to the college and the success of deaf and hard-of-hearing students go beyond mere words. Their actions produce results that have a tremendous impact on the advancement of deaf and hard-of-hearing people throughout the world.

Fortune 500® is a registered trademark of Fortune magazine. Used with permission. All rights reserved.



“We are all not so very different,” says applied computer technology student Qing Quan, left, from Beijing, China, seen here enjoying a conversation with international student admissions counselor and NTID/RIT alumna Loriann Macko, center, and Sospeter Oloo, applied accounting student from Tanzania, East Africa. Deaf and hard-of-hearing students from 21 different countries bring a global perspective to the campus as they pursue career-oriented technical and professional education programs at NTID and RIT.

International Students Bring the World to NTID

By Frank A. Kruppenbacher

Since its inception, NTID has attracted intense interest and curiosity from all corners of the United States and from countries around the world.

Upon opening its doors in 1968, NTID formed close associations with organizations such as the World Federation of the Deaf (WFD) and the International Congress on Education of the Deaf (ICED). These alliances allowed faculty and staff members to share NTID’s evolving concept of technical and professional college and career education for deaf and hard-of-hearing individuals with the global community in the hopes that similar institutions might be established in other countries.

NTID’s international presence strengthened over the years, solidifying in 1990 when the college hosted the ICED conference. That year NTID announced it would begin accepting qualified students from other countries. Initially, 32 applications were received from students in seven countries. From this group 17 students registered.

Since 1990 NTID has enrolled 292 international students. NTID’s

international alumni group represents 76 graduates to date. From 1990 to 1998 NTID was federally mandated to limit the number of qualified international students enrolled to 10 percent of the student body.

“The road to NTID for most international students is not an easy one,” says Loriann Macko, international admissions counselor for NTID. “There are obstacles students must overcome — their own country’s political and educational infrastructures, the costs associated with attending college in the United States, and English language mastery.”

NTID reached its limit of enrolled international students in 1997 and again in 1998. A reauthorization of the Education of the Deaf Act in 1998 raised the limit on enrolled international students to 15 percent. Despite an increased capacity to serve students, NTID attracted only 79 international applicants in 1999 because of limits to financial assistance. Of these, 42 students were accepted, and 22 enrolled.

“The majority of our international students come from Canada,” says Macko. “Between 1998 and 1999 many

deaf students from Canada lost a number of funding resources from within their country. This either discouraged or prevented them from being able to attend NTID.”

Tara Nesbitt, 19, from Oakville, Ontario, Canada, wrestled with the issue of funding while deciding to attend college in Canada or the United States. As a top swimmer, several Canadian universities offered her scholarships. But RIT offered the major she wanted, social work, in a supportive and accessible environment with hundreds of deaf student peers.

Nesbitt chose RIT. The cost of her education is supported in part by the Ryoichi Sasakawa Scholarship Fund. Established in 1993 through a \$2 million grant from the Sasakawa Foundation of Japan, the fund has provided scholarship assistance to qualified deaf international students like Nesbitt enrolled at RIT through NTID.

“It was a difficult decision for me to leave Canada,” says Nesbitt. “Coming to RIT has proved to be one of the smartest choices I have made in my life. I am in the program that’s right for me, and I am having fun on the RIT women’s



swim team while immersing myself in the great deaf community here at NTID. I need to ask for no more.”

One of RIT's deaf international students went to great lengths to secure funding for his education. Anthony Manion, 31, of Sydney, Australia, was intent on enrolling in RIT's highly competitive Film, Video, and Animation program. He launched a letter writing campaign and reached out to 120 funding prospects across Australia. His efforts paid off, and Manion received

enough money from interested individuals and corporations to fully fund his RIT education for four years.

“Money was just one of my struggles,” says Manion, now in his third year at RIT. “When I applied to RIT through NTID I first had to pass the test for high school equivalency. There were so few resources for deaf students in Australia that I could only complete my education up to the eighth grade.

“I passed that test and my Test of English as a Foreign Language (TOEFL), and with the generous support of friends back home I am here at RIT. This is the first time in my life I am receiving an education from teachers who sign for themselves or through services of interpreters. It's great!”

Second-year applied computer technology student Qing Quan, 27, excelled in grade school, high school, and college in Beijing, China. She attended mainstream programs without support and access services and completed high school one year early. She went on to be the youngest student at China's Changchun University, earning her associate degree in arts and handcrafts in 1992.

Quan's goal is to attain a bachelor's and perhaps a master's degree while at

RIT and return to China to work and possibly teach in the information technology field.

She says that English, her fourth language in addition to spoken and signed Chinese and American Sign Language, continues to challenge her.

“Although I passed the TOEFL to enroll in NTID, I still have some difficulties understanding English,” says Quan. “I work in the Spoken Language Learning and Practice Lab at NTID and volunteer as secretary of the Asian Deaf Club. I enjoy doing both activities because I can improve my English and learn how American students, including Asian-American students, live, study, and think.”

This high level of personal and academic motivation on Quan's and Manion's parts is characteristic of deaf international students enrolled at NTID/RIT.

According to NTID enrollment data, on average, international students attending RIT through NTID are better prepared academically than American deaf students. As a result, they persist at a higher rate. When analyzed by academic major, deaf international students are more likely to directly enroll in programs offered by RIT's seven other colleges than those offered by NTID.

Such superior academic preparedness contrasts sharply with international students entering the United States who are immediately confronted with living in a land that is truly foreign to them. Housing, shopping, safety and security, and getting along with Americans and their lifestyle present challenges to some international students.

“Nearly every international student experiences some level of culture shock,” says Macko. “To help these students effectively cope with and overcome culture shock, I tell them they are not alone. As a group, international students support and encourage each other, and American deaf students provide additional support and positive perspective.”

Sinead Braiden, 28, completed RIT's Social Work program, graduating in May 2000. Braiden hails from Dublin, Ireland, where she now works as access



Lights, camera, action Anthony Manion, right, directs RIT student actors Tanya Takacs, left, and Leah Volpe in a scene for “Zachery's Wishes,” an original short film he wrote and produced for a class assignment.

officer for the Commission on Child Abuse Inquiry at the Irish Deaf Society.

“It took me a while to get used to the American way of doing things and the people, too,” says Braiden. “I learned a great deal and grew personally from the experience. Students were interested in learning Irish Sign Language, so I was happy to teach them about Irish ways and Irish deaf culture. That way I could keep culturally connected to myself and understand my American friends better.”

Fifth-year information technology student Nicholas Yuyama says that he overcame culture shock by delving into learning the latest technology related to his major. Yuyama came to NTID/RIT as a transfer student in 1994 from Tsukuba College of Technology, NTID’s sister institution in Amakubo, Tsukuba, Japan.



Nicholas Yuyama

“I have not intended to seek out Japanese, or deaf, or hearing students to socialize with,” says Yuyama. “I enjoy being with people I can communicate with, and those who share my infinite enthusiasm to learn more about the latest technology, no matter who they are. It is RIT’s dynamic cultural variances, I believe, that truly prepares individuals to meet the challenges of a new generation.”

While Braiden’s and Yuyama’s experiences are not as extreme, in some parts of the world, people live in areas where any disability including deafness is openly discriminated against.



Ziao Fong Hsia

RIT’s earliest known deaf and international student is Ziao Fong Hsia.

Hsia came to America and Rochester, N.Y., from Imperial China in 1909 with Mrs. Mills, a teacher from the Rochester School for the Deaf (RSD) who toured extensively through China demonstrating methods

of teaching deaf students used in America at that time. He enrolled in RSD and immediately became popular among his classmates and teachers, excelling in his studies each year until graduating from high school.

In 1921 Hsia entered the School of Applied and Fine Arts at the Rochester Athenaeum and Mechanics Institute, the forerunner of the present day RIT. He matriculated into the teachers’ training course for three years of study in craft education, including design and color, drawing, and metal and jewelry work. He also made a special study of photography through classes taught at the Eastman Kodak Company. To satisfy requirements for his graduation he conducted afternoon classes in metal work at RSD.

Hsia was a faithful and conscientious student. He ranked high among his class of 120 graduates of the Institute in 1923 and earned membership into the Lomb Honors Society for his academic excellence. Although he was fully Americanized, immigration laws of the time required Hsia to return to China following his graduation.

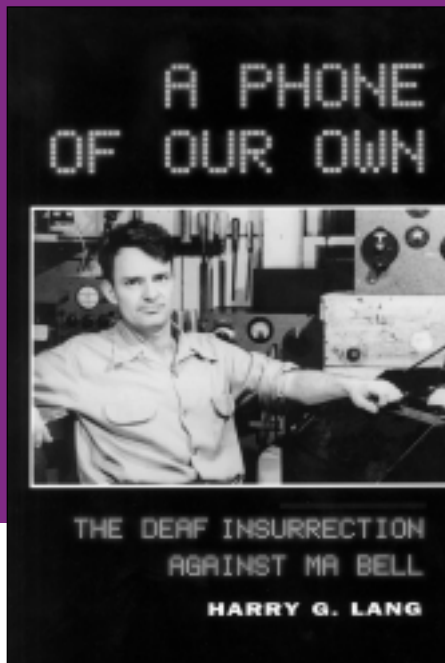
Upon his arrival in Ningpo, China, Hsia took a position with an architect’s office utilizing his skills in mechanical drawing that he had gained from the Institute. He went on to take the position of chief accounting clerk in the Chinese Customs Service.

He kept in regular contact with his former RSD classmates and teachers. Hsia’s last letter to the school, dated May 27, 1979, expresses his regrets for not being able to attend the school’s 75th anniversary due to failing health.

Sospeter Oloo, 34, of Dar Es Salaam, Tanzania, East Africa, had normal hearing until he fell off a bicycle and suffered a head injury at age 15. He lost all sense of hearing from the accident and continued at mainstream schools since his country did not provide specialized schooling for deaf students. He first learned about NTID from an advertisement in *WFD News*, the official publication of the World Federation of the Deaf. With no hope for a college education with needed

support and access services in his native country, Oloo taught himself English and applied to NTID.

“In Tanzania, deaf people are openly discriminated against in terms of education and employment,” says the second-year applied accounting student. “I want the opportunity to become a teacher. With a college degree I will have a kind of power that not many others in my country have. My dear friends at NTID have given me an invaluable gift.”



A Phone of Our Own: NTID pioneers in the telecommunications access story

By Kathryn L. Schmitz with Harry G. Lang

A Phone of Our Own: The Deaf Insurrection Against Ma Bell is a story of empowerment, a battle for independence and access.

Deaf NTID faculty and staff members who joined the college during its early years remember many challenges—including having no direct telephone access. NTID welcomed its first class of deaf students in 1968, the same year that Teletypewriters for the Deaf, Inc. (now known as TDI) was established to collect and distribute behemoth teletypewriters (TTYs) to deaf families around the country. By that fall, there were no more than 175 TTYs in the country, but none were in Rochester, N.Y.

In an effort to develop equal access to the telephone for deaf faculty and staff, NTID experimented with three devices: the Electrowriter, a pen and stylus telephone device; AT&T's Code-Com, requiring memorization of Morse code and transmission through a vibrating button and flashes of a small lamp; and more than 30 Stromberg-Carlson Vistaphones, video telephones which, because of special wiring needs, could only be used for calls on campus. None of these devices was good enough to make a telephone call home without a strategic plan.

By 1972, there were about 40 TTYs in Rochester, but only two or three on RIT's campus. Of the tens of

millions of telephones in the United States and Canada at that time, still less than one percent were used regularly by deaf people. Most deaf people depended on their hearing neighbors or family members to act as intermediaries for business calls or medical consultations, and NTID students lined up to get help from an interpreting center on campus to make personal telephone calls.

During the late 1960s, three enterprising deaf men, Robert H. Weitbrecht, James C. Marsters, and Andrew Saks, began a process that led to access to an affordable phone system for deaf people around the world. Weitbrecht, a successful physicist with the Stanford Research Institute, had been experimenting with a teletypewriter connected to his short-wave radio. When Marsters, a prominent deaf orthodontist, met Weitbrecht and saw his TTY, he immediately suggested the possibility of resolving deaf people's decades-long struggle to have access to telecommunications without relying upon hearing people as go-betweens. Andrew Saks, a deaf engineer, brought his business acumen to the group, which soon set to work overcoming the daunting problems they faced.

A Phone of Our Own, written by

Dr. Harry G. Lang, professor in NTID's Department of Research, and published in 2000, documents the long battle of the Deaf community with corporate America to acquire a visual telephone device. The book describes how Marsters, Saks, and Weitbrecht collaborated to solve the technical difficulties of developing a coupling device for TTYs that would translate sounds into discernible letters. More remarkably, and with the help of an expanding corps of deaf advocates, they successfully assaulted the American Telephone and Telegraph Company, which, in its efforts to protect its monopoly, smashed old TTYs to keep them from being used for potentially competitive purposes. *A Phone of Our Own* recounts in vivid terms how many other deaf individuals and groups from all walks of life joined the three pioneers in their movement to empower the deaf community.

The original goals of developing a portable and affordable telephone device were slowly realized over a period of decades. By the middle of the 1970s, microminiaturization led to TTYs weighing less than 10 pounds. But these devices were still too expensive for most deaf people, remaining so until companies like



Paul Taylor, associate professor in NTID's Applied Computer Technology Department, right, formed the first local advocacy group in St. Louis, Mo. in 1968, to collect, overhaul, and distribute the behemoth teleprinters to deaf families. With him are his wife Sally, also a pioneer in the telecommunications access movement, and their son, David.

Ultratec began manufacturing less costly products in the 1980s. Another goal established by Marsters, Saks, and Weitbrecht was a system to communicate by TTY with any hearing person who did not have such a device. In the research for this book, it was discovered that Saks and Marsters had established private relay services in California as early as 1966. It took an “insurrection” in the form of many protests and legislative battles, however, to bring relay services to the deaf community as a whole, most notably with the Americans with Disabilities Act (ADA) of 1990.

In effect, the modem developed by Weitbrecht, Marsters, and Saks was not a technological wonder as much as it was an economic gateway in a social revolution. These three deaf men, and the many deaf and hearing people who followed in their footsteps, bridged science, technology, and society to enhance the lives of deaf people. While we in the United States enjoy such access, more than half of the hearing people in the world have never made or received a single telephone call.

With a grant from the National Science Foundation and support from TDI and Marsters, research for the book conducted during summers and weekends took five years. The book was critically reviewed as “inspiring” by *Publishers Weekly* in its March 13, 2000, issue. *Booklist*, in its April 15, 2000, issue, noted that the book “chronicles a most important leap for deaf communication from the 1960s through the 1990s, of which many of the hearing population are unaware.” *QST* magazine called the book a

“compelling technological history” in its November 2000 issue: “You don’t have to be deaf to be intrigued by *A Phone of Our Own: The Deaf Insurrection Against Ma Bell*. On the contrary, you’ll come away with a deeper appreciation of this little-known struggle for equal communication access.”

Additional kudos came from the January 2001 *Silent News*, “It is like looking at an historical document: I can never again answer that flashing light without knowing memory of the long struggle with corporate America—AT&T and others—for recognition of a dire deed. Great reading!”

The February 2001 issue of *Lingua Franca* remarked, “Even if the Internet ends up severely reducing

accessibility for America’s deaf and hard-of-hearing citizens over the past 30 years. One of the earliest users of the TTY, Taylor developed the first significant local network of TTYs in St. Louis, Mo. He also authored a technical manual for TDI agents to rebuild scrap TTYs and place them in the homes of deaf people around the country. Taylor’s most significant contribution to the field was his advocacy for a nationwide telecommunications relay service. While working at the Federal Communications Commission during a leave of absence from NTID in 1989-91, he helped promulgate the regulations to which all relay services must adhere.

This chapter from deaf history is a lesson in persistence, creativity, and the genius of community.

TTY use, Lang feels that the history of the TTY will remain important because it can “inspire young deaf people to become advocates of their needs as technology evolves.”

The historical research for *A Phone of Our Own* as well as some of NTID’s own pioneers in telecommunications were recognized by TDI in December 1998 when the organization celebrated its 30th anniversary. Among the deaf and hearing “movers and shakers who bridged the gap between deafness and hearing loss and the ever-changing telecommunications network” were faculty and staff members and NTID graduates who played significant roles in the founding, growth, and success of TDI and contributed to bringing deaf people into an era of better TTYs, television captioning, and equal access to the wider world.

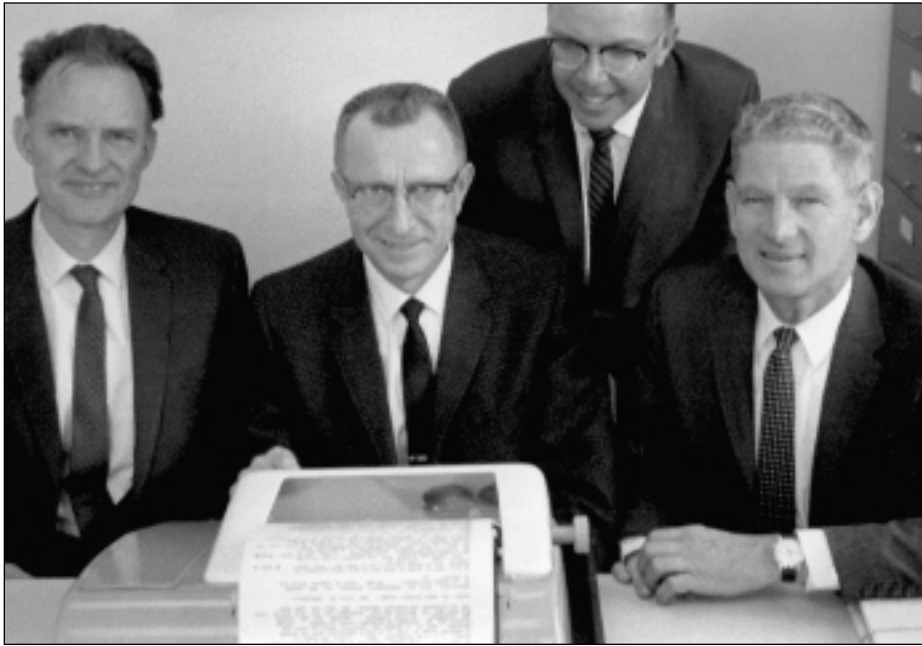
Paul Taylor, associate professor in NTID’s Applied Computer Technology Department, was one of the top 30 individuals honored by TDI for his contribution to telecommunications

Other NTID faculty and staff members and graduates of NTID were honored by TDI for playing prominent roles in telecommunications history. The book’s author was recognized for his historical account, and Dr. T. Alan Hurwitz, dean for NTID, was recognized as a key player in TDI’s Mission 2000 Strategic Planning Document. Sally Taylor, retired lecturer in NTID’s Department of Cultural and Creative Studies, was honored as one of the pioneer deaf women in the TTY movement and a leader in the pioneer network development in St. Louis. Judy Viera, former NTID English teacher, was acknowledged for surveying telephone relay service practices and providing the basis for the Federal Communications Commission relay enforcement standards.

NTID graduates were also praised for their contributions to telecommunications access. Robert Mather, a 1974 social work graduate, was recognized for his work as an attorney in the U.S. Department of

Editor’s note:

A Phone of Our Own, by Dr. Harry G. Lang, professor in NTID’s Department of Research, is available through:
Gallaudet University Press
c/o Chicago Distribution Center
11030 South Langley Avenue
Chicago, Illinois 60628
1-800-621-2736 (V)
1-800-630-9347 (TTY)
1-800-621-8476 FAX



In 1964, Robert G. Sanderson, 2nd from left, president of the National Association of the Deaf, types a telephone message with, left to right, Robert H. Weitbrecht, James C. Marsters, and Andrew Saks looking on. Marsters and Sanderson have received honorary doctoral degrees from RIT for their contributions to the education of deaf people and served on NTID's National Advisory Group.

Justice. Also recognized were David Nelson, a 1985 computer information systems graduate who served as a member of the DC Relay Advisory Council, and Linda Nelson, a 1973 business administration graduate who worked with video relay services. David Rosenthal, a 1978 graphic design graduate, was thanked for his assistance to TDI with the EASE project for 9-1-1 access. Norman Williams, 1984 electromechanical technology graduate, was recognized for his development of the Futura TTY software.

The college of NTID itself was recognized by TDI for having proven to be an "ideal test market" for new products and services for deaf and hard-of-hearing consumers. As described in *A Phone of Our Own*, in addition to field-testing the various telephone devices, NTID collaborated with Rochester Institute of Technology's College of Engineering to develop one of the first portable TTYs. Although the device was not marketed, members of the National Association of the Deaf and the U.S. Office of Rehabilitation tested it when Dr. E. Ross Stuckless, professor emeritus of NTID, and Jim Walker, professor in RIT's electrical engineering program,

brought two of the TTYs to Washington, D.C., in 1969 and demonstrated them in hotel rooms.

At its 30th anniversary celebration, TDI also recognized a long list of

"agents" who were involved in the movement to locate, rebuild, and distribute the early TTYs. Those from NTID included Warren R. Goldmann, associate professor in NTID's Engineering Support Department, and graduates Carmelo Sciandra, electromechanical technology 1974, and William Brown, Jr., engineering technology 1973.

Thirty years later, remarkable progress has been made. Today, a TTY in every deaf and hearing faculty and staff member's office at NTID, access to e-mail and the Internet, and hand-held communications terminals allow deaf faculty and staff members to fax or e-mail messages while on the go. With such telecommunications access has come independence and empowerment, but none of this was achieved without great struggle.

The increased sophistication in today's technology was built on the pioneering efforts of Weitbrecht, Marsters, and Saks and the deaf community they mobilized. This chapter from deaf history is a lesson in persistence, creativity, and the genius of community.



Author Harry G. Lang, professor in NTID's Department of Research, with one of the two modems used in the first TTY telephone call in November 1964.



Tonia Fehrenbach

ALUMNI PROFILE

Tonia Fehrenbach

by Karen E. Black

Not too many people can say they've achieved all of their dreams by age 29, but Tonia (Jimmerson) Fehrenbach can.

"I am very proud that despite being a deaf person I have been able to achieve all of my dreams," Fehrenbach says. "Graduating from high school and college, having a great job, getting married, having a house, and now studying for my master's degree. Being deaf does *not* mean that you cannot achieve your dreams."

Not until her third and fourth years at RIT did she realize that deaf people are equal to hearing people, and that she *could* do anything as long as she put her mind to it.

"It was during that time that I developed self confidence and learned how to be proactive, which is the most important aspect of surviving in the business world," Fehrenbach says.

Fehrenbach learned that survival tactic five years ago as a new employee for Xerox, where she often felt isolated and left out of conversations.

"My first few months weren't the best," she recalls. "I wasn't sure what to do. I kept waiting for someone to tell me what I was supposed to be doing.

"I finally figured out that I was the one who was

supposed to initiate what needed to be done. It's all about being proactive. You see something that needs to be done, and you do it."

Fehrenbach also discovered that it is up to her to overcome prejudices towards deaf people.

"Many hearing people, when they first meet me, are not quite sure how to approach me," she explains. "Rather, I've learned to approach them and let them know that I am not going to 'bite.' I wish people were more understanding."

Xerox has been very supportive, says Fehrenbach, by requesting interpreters whenever she needs them and by purchasing a TTY with a flashing light for incoming calls. "My manager has helped and encouraged me a great deal," she says.

Fehrenbach's parents discovered she was deaf when her mother was vacuuming and six-month old Tonia did not wake up. Soon after, a test confirmed she was profoundly deaf. Nine years later, her brother was also born deaf. With two hearing siblings and no other deafness in the family, Fehrenbach and her brother's deafness still remains a mystery.

Fehrenbach lived in Rapid City, S. D., most of her life, where she attended high school and one year of college.

"After one year, I decided it wasn't the place for me," she says. Transferring to RIT in 1990, Fehrenbach earned a bachelor's degree in marketing in 1995 and has stayed in Rochester ever since.

"I chose RIT because I had very few experiences with other deaf people, and I was beginning to feel as if I were on my very own island," she says. "I wanted to meet more people like me. I didn't even know sign language. I chose RIT because of the wide variety of people, both deaf and hearing."

Today, 29-year-old Fehrenbach is a scheduler and project manager with Xerox Internet Document Services, where she allocates appropriate resources and sets timeframes needed to deliver a customer's request in a timely fashion. As a project manager, she communicates with customers as well as many different people working on a particular job to ensure proper, efficient completion.

On-the-job communication challenges are few, she says, because she speaks and reads lips well. But because she is unable to use the phone, she relies heavily on e-mail for communication among her colleagues.

"I thank God for e-mail every day because without it, deaf people would be at a very serious disadvantage," Fehrenbach says. "E-mail allows me to communicate with customers. Many of

my customers do not realize I am deaf, and if they do, they don't care because I provide a very high level of customer service."

In staff meetings, Fehrenbach positions herself for optimum visual benefit, and the person talking holds a small stuffed dog to help prevent rapid back and forth conversation and to allow Fehrenbach to follow the conversation flow.

She is very active in animal rescue and has volunteered at Lollypop Farm for more than five years. In addition to caring for their three dogs and six cats, she and her new husband Rob Fehrenbach volunteer for the Animal Rescue Team and provide foster care for cats through GRASP (Greece Residents Assisting Stray Pets).

With six courses left to finish her master's degree in information technology, Fehrenbach is considering pursuing an MBA in accounting or finance, or possibly a new career in teaching.

Along the way, Tonia Jimmerson Fehrenbach remembers to live well, laugh often, and love much.

"I am a very happy person, and it is because I have always taken matters into my own hands," she says. "I cannot think of life in any better way than it is now. Life is a precious gift."

Marcus Holmes

by Kathryn L. Schmitz

Marcus Holmes, a Detroit native, doesn't hesitate to extol the virtues of RIT's cooperative education experience. A 1999 graduate of RIT's mechanical engineering technology program, he believes that cooperative work experiences help students decide whether their field of study is what they want to do after college.

"It helps students prepare themselves for the working world," says Holmes, who now works at The Gleason Works, a manufacturing firm in Rochester, N.Y. "This programs saves students time and money because no one wants to waste five years of their time in college and end up with a job that they dislike.

"What many college students don't realize is that not everything they learn is applied on the job," he adds.

Holmes is a tooling engineer-drafter in the Bevel Tooling Department of The Gleason Works. Established in 1865 in Rochester, the company designs, manufactures, and sells machinery and equipment for the production of bevel and cylindrical gears used in the automotive and trucking industries as well as aerospace, construction, farming, and marine applications. In fact, Kate Gleason, the company founder's daughter, was the first woman to study

engineering at Cornell University, but she returned to help her father with the business before graduation. In 1917, she was the first woman to be elected to membership in the American Society of Mechanical Engineers, and both the Kate Gleason College of Engineering and the Kate Gleason Residence Hall at RIT are named after her.

"Many companies have their own standard of doing the same things," says Holmes, who never resided in Gleason Hall during his college years at RIT. "When I started co-op at Gleason, I was frustrated at first. As time passed, I began to understand how to do my job better. I was given training on different tasks that were not taught at NTID/RIT."

Holmes' duties include creating new drawings of existing parts and making changes based on customer specifications; preparing and altering scale detail drawings of units and components from drawings and specifications prepared by project engineers; checking drawings for scale, accuracy or dimensions, tolerances, and material specifications; and revising drawings to fit customer specifications.

Holmes chose to work at Gleason because he was interested in learning more about how the company designs and builds its products and because the company

gave him an opportunity to be part of their team. He says that since he took his permanent position at Gleason, his responsibilities have increased.

"That's good because what I need is challenge," he explains. "I always try to approach my job with the positive attitude of 'I'm going to work this out' and try to become a better employee at Gleason. No one is perfect in this world, hearing people, deaf people, blind people. We all make mistakes in our lives but we learn from them."

Holmes is a strong believer in the need for good communication skills in the workplace. He uses e-mail and prides himself on effectively communicating with his hearing colleagues without depending on interpreters, only requesting interpreters for large meetings.

The Gleason Works employs two other deaf RIT graduates: Jared Evans, a systems analyst, and Donald Carter, a production support engineer. Holmes also is married to a deaf RIT graduate, Sonya (Chaloux) Holmes, who earned her bachelor of science degree in information technology in 1996 and now is a software tester engineer at Element K. The couple lives in Rochester.

Holmes has already set long-term goals for himself.

"My goal is to expand my knowledge and experiences as much as I can in different



Marcus Holmes

areas of engineering to become a successful designer in the future," he says. "I hope to be able to change positions as my responsibility increases within the company, and I also would like to use my experience to help those with work-related problems. Basically, I want to help my department and the company grow as the years go by."

Editor's note: More information about The Gleason Works can be found at <http://www.gleason.com/>.



Jamie Biser

Jamie Biser

Jamie Biser of Aurora, Ohio, has decided to become a chiropractor. He plans to enroll at Palmer College of Chiropractic, in Davenport, Iowa, when he finishes his biomedical computing degree at RIT this May.

"It's the only thing I want to do for the rest of my life, career-wise," he explains. "I also truly believe in it with all of my heart. It has nothing to do with the money or getting a high doctoral degree for show. It is what my heart wants to do, helping people without traditional medicine."

Jamie has spent his time at RIT doing more than just preparing for a chiropractic career.

"I think being at RIT will be one of my most memorable experiences," he says. "I love the variety of cultures, the support services for the deaf, and lastly, the RIT rowing team."

The 24-year-old has participated on RIT's crew team for three years, which has been his only extracurricular activity because it is so time consuming.

"I love crew because it is all about teamwork, not about being the best rower," he explains. "It also has taught me a lot about life and discipline and keeps me in great health."



Trisha Gard

Trisha Gard

Trisha Gard has taken a hands-on approach to life, preferring to get involved, doing things herself and learning from her experiences. That approach has served her well in engineering her college career.

"I chose computer integrated machining technology (CIMT) as my major because I have always preferred working with my hands," says the 23-year-old from Fisher Branch, Manitoba, Canada. "I enjoy doing things like fixing my car and working on my friends' cars."

For two years, Trisha has served as a teaching assistant for CIMT students enrolled in NTID's freshman seminar course.



Delee Windsor

"My job is to help students through their freshman year by helping them bond together," she explains. "Developing a sense of community is really important."

Trisha extends her community-building efforts into her work as a resident advisor (R.A.) in RIT's Ellingson Hall dormitory, a position she has also held for two years.

"I like to help other students, especially freshmen," says Trisha, who received an award last year for her work as an R.A.

Now in her third year at NTID, Trisha plans to pursue a bachelor's degree in engineering at RIT next year. She hopes to someday return to NTID as a teacher in the CIMT program.

Delee Windsor

At age 2, Delee Windsor, now 20, was abandoned at a police station in Korea. His deaf parents adopted him when he was 3, and he became an American citizen at 4 years old. Delee did not let this inauspicious start stop him from becoming an honors student and well-rounded individual at RIT.

Delee has traveled throughout the world through the unique Foreign Exchange program at his school, the Rochester School for the Deaf. In 1996, he lived with host families in France and England for two weeks. In 1999 he stayed with host families in Sweden, France, and Italy for about two and a half weeks. Delee hopes to travel to Australia and visit his country of birth, South Korea.

A second-year student in the Computer Integrated Machining Technology program, Delee credits NTID's Summer Vestibule Program (SVP) with helping him select the major that complements his skills and interests.

"SVP helped me to find my major, and I love what I am doing now," he says.

Jerald Creer

Jerald Creer, a 25-year-old social work student from Richmond, Va., boasts an extensive resume in his field of study. He has just completed a two-quarter cooperative education experience with AIDS Rochester, Inc., as a social work intern. His other experiences include working with Hillside Children's Center in Rochester for three years, serving as a peer outreach educator with the Men of Color Health Awareness Project, and attending HIV/AIDS related conventions in New York City; Albany, N.Y., Rochester, N.Y., and New Jersey.

His experience as a fourth-year student in RIT's Social Work program as well as the NTID/RIT Dance Company led Jerald to decide he wants to become a dance therapist, particularly after becoming involved with the American Dance Therapist Association.

"I got involved with dance because I find it very therapeutic," he explains. "Theater has offered me opportunities for spiritual growth along with mental and physical growth."

Jerald has been involved with the Garth Fagan Dance Company in Rochester, but has had to put his dance career on hold while focusing on completing his degree.

"I never really connected dance and social work until I did some research on disability and movement," he says. "It is something that I want to do full time someday."

Andy Tao

Andy Tao, 24, decided to attend RIT because of the quality of RIT's education and the opportunity to become involved with the hearing and deaf worlds.

"I have improved my skills with hearing people through interaction with my hearing peers on campus," he says.

Andy currently works as a tutor and Webmaster for NTID's Science and Engineering Support Service Department, helping non-biology majors tackle difficult courses such as microbiology. In his ongoing quest to become a leader, he has been involved in a multitude of roles, such

as ASL Floor President and Kappa Phi Theta Vice President.

A 2000 graduate with a bachelor of science in biology from RIT, Andy is now working towards his advanced certification in interactive multimedia development. His graduate pursuits are supported by NTID's Professional Fellowship grant program.

"I hope to create multimedia sites on the Internet to help simplify and teach the difficult concepts and information for those interested in the field of biology," he says.

Erin Vlahos

First-year student Erin Vlahos sees something unique in college life at NTID/RIT.

"There's a special magic in the activities and clubs and in the way that people are involved—students and staff," says the 19-year-old from Pittsburgh, Pa., who plays intramural volleyball and softball at RIT and is a member of the swing dance and snow skiing clubs. "You don't feel alone here; people are very nice and supportive."

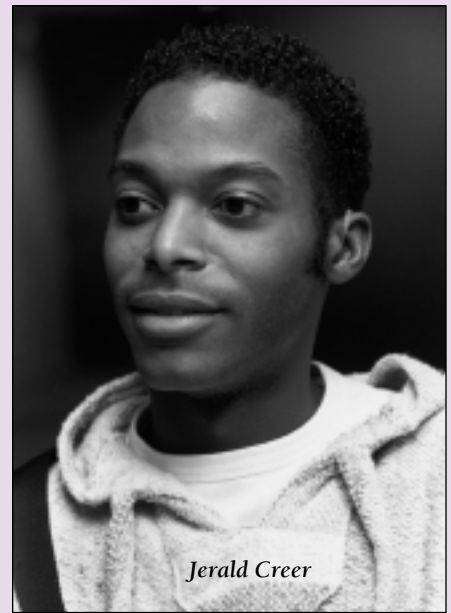
The support services at NTID/RIT are one of the reasons Erin chose to come to college here.

"I went to mainstream schools my whole life and had no help," she explains. "Faculty and staff at NTID and RIT provide support and have experience working with deaf students."

One of eight children, Erin has traveled extensively with her family and alone. She lived in Brazil for a year and is fluent in Portuguese. She plans to travel more in the future, but for now is concentrating on college.

Erin, who is a science student at RIT and plans to be a heart surgeon, is following in the medical-career footsteps of her family. Her father is a doctor of anesthesiology, her mother is a registered anesthesiology nurse, and one of her sisters is studying ultrasound technology.

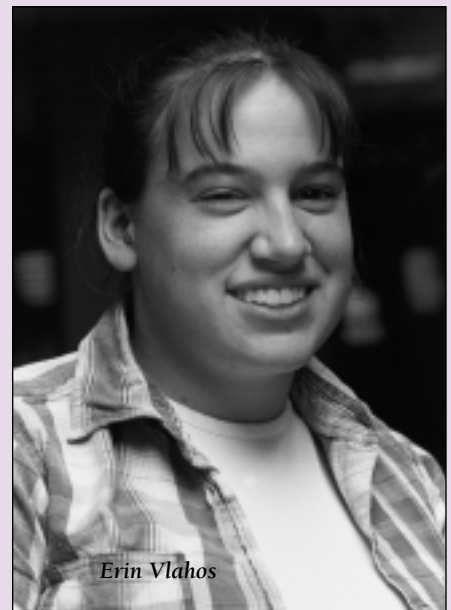
"My uncle always tells me, 'Life is short; live it well,'" says Erin. "That's what I want to do."



Jerald Creer



Andy Tao



Erin Vlahos



Ed Molloy

Ed Molloy

Ed Molloy, 51, lost his job as a supervisor for a laundry company in 1990 due to his deteriorating vision from Usher's Syndrome. Motivated to continue to be a skilled worker, he passed his General Educational Development (GED) exam and returned to college in 1995, 32 years after leaving high school.

A fourth-year applied computer technology student at NTID, Ed is back on a career track.

"I felt that working with computers would be an ideal job for a person of my disability and because it is an area of high demand," he explains.

At NTID, he says that he receives excellent services to assist his vision needs. Such services include having an interpreter in the classroom who signs at a close proximity and technologies such as ZOOM text software that enlarge the texts on computers.

Last summer, he worked at the Association for the Blind and Visually Impaired as a systems administrator. When he graduates this May with his associate of applied computer technology degree, Ed hopes to find a job and continue to work toward his bachelor's degree.



Stephanie Chester

Stephanie Chester

A native of Baltimore, Md., Stephanie Chester, 31, says her life has improved since receiving her new cochlear implant (CI) and transferring to RIT.

Before she transferred to RIT, Stephanie received a CI in 1998 to improve her hearing and speech skills because she felt she did not benefit from her hearing aids.

"I can hear well enough now to communicate with others in social settings," she says.

Stephanie receives free speech training at NTID and says that the services are extremely helpful for her.

In search of a new academic environment, Stephanie enrolled in RIT's Information Technology



Tim Vail

program. A talented basketball player, she decided not to pursue her basketball career at RIT, opting instead to focus on her academics. Her diligent academic focus has earned her Dean's List honors and a 4.0 grade point average in the spring quarter of 2000.

Stephanie expects to graduate in May 2002 and find a job as a PC support technician or programmer.

Tim Vail

Tim Vail, 20, a second-year computer science student from Lebanon, Pa., has achieved some uncommon distinctions. Growing up in rural Pennsylvania, Tim competed in cow show competitions. He proudly boasts that his cow, Posie, was the 4-H grand champion three years at his local county fair and won All-PA honors in 1998 for her class.

At RIT, Tim has not lost his competitive edge, becoming involved with the campus chess club. He was victorious in the RIT/Gallaudet weekend chess competition in 1999 and placed second in a chess tournament in his section during his freshman year.

Tim has earned Dean's List honors every quarter since entering RIT with a cumulative grade point average of 3.9. He is a student lab instructor helping deaf and hearing students with their studies and also is involved in the Campus Crusade for Christ and Intervarsity clubs.

Tim is still unsure of what he wants to do with his career.

"I like programming, but I feel there might be other technical things that I would like to do," he says.

Antilla Zulkifl

Antilla Zulkifl has a real zest for life. She likes to get involved in many activities and try new things.

“I enjoy playing sports, socializing, and performing,” says the 20-year-old from Atlanta, Ga. “I’m into so many things; I don’t want to choose just one.”

She selected NTID/RIT for college because of the unique options and experiences available to her here.

“I like being with people who grew up in a mainstream environment like I did,” explains the second-year student, “but I also wanted to experience deaf culture and meet people from other countries. NTID/RIT is a great place to do all that and get a good education.”

Captain and MVP of her high school swim team two years in a row, Antilla is now in her second year on the RIT women’s swim team. She’s also a member of the NTID/RIT Dance Company and performed in NTID’s production of *The Tempest* last year, traveling to New York City for a two-week off-Broadway run of the show.

Antilla plans to major in graphic design and is considering a career as an artist or actor. She would also like to travel and someday coach a team of deaf and hearing swimmers.

Chris Sano

A recent RIT information technology graduate from Albany, N.Y., 23-year-old Chris Sano knows what hard work can involve. He completed a cooperative work experience (co-op) with Microsoft Corporation in Redmond, Wash., as a product user interface designer last summer.

“I worked closely with project managers, developers, and engineers in the Visual Studios department to develop design and implementation strategies for their latest software release,” he says. “I was thrown in the middle of the production process and had the opportunity to do some design work and witness the excruciating procedures that are endured during the production cycle

of software development.

“It was a great experience. The hardest part was learning programming languages that were so new there was no written documentation.”

For Chris, college has offered a spectrum of experiences. In addition to working on his master’s degree in software development and management at RIT, he is serving a second term as president of the Mu Zeta chapter of Sigma Nu International Fraternity and a second year as resident advisor in Ellingson Hall.

“Even though it’s been overwhelming at times, college has made me who I am today,” he says.

Juanita Montes

Juanita Montes of Brooklyn, N.Y., has pursued her passion for dancing and art throughout her life.

She is involved with the NTID/RIT Dance Company, performing in many of the group’s productions.

“Dancing and the performing arts have been my life,” explains Juanita, 27, an avid dancer since she was 6 years old. “Everything I have done has revolved around it.”

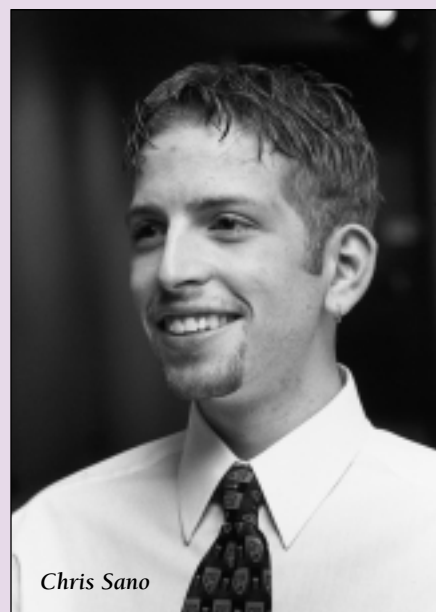
She serves on the executive board of the Hispanic Deaf Club as an assistant public relations officer and strives to help the Hispanic community understand its culture and history.

RIT’s Nathaniel Rochester Society has recognized her for her active participation in student clubs and organizations and outstanding academic achievement. She also was awarded the Michael Thomas Theatre Scholarship for her exemplary performances and participation in the theater.

Juanita will graduate this spring with her bachelor of fine arts degree in illustration. In the future, she wants to become involved with theater arts and art studios.



Antilla Zulkifl



Chris Sano



Juanita Montes

Faculty Leaves Enhance the Classroom Experience

By Kathryn L. Schmitz

Remaining invigorated, inventive, and industrious is essential to being an effective instructor. Without opportunities to recharge and acquire new knowledge and skills, faculty members cannot sustain their high quality instruction over the years.

To assure the vitality of its faculty members, NTID offers a special short-term professional leave program. This program was established in 1997 specifically to support faculty members in their efforts to upgrade their skills and expertise so they can develop new curriculum and innovative educational delivery systems. Funding is available for those leaves supporting direct service to students as a primary responsibility, which can include but is not limited to classroom instruction, counseling, advising, interpreting, mentoring, tutoring, and notetaking. These leaves free faculty and staff members from their regular responsibilities to address issues of importance to the growth and vitality of the Institute.

“The continued excellence of NTID rests on the vigor and resourcefulness of its faculty and staff members,” says Dr. Robert R. Davila, RIT vice president for NTID.

Several NTID faculty members have been granted short-term professional leaves over the past two years because their leave activities involved development and delivery of new or revised curriculum initiatives, use of technology, or development of distance learning or other continuing educational experiences that they now use in their classrooms.



Long-time colleagues Ann Bonadio, left, and Dorothy Baldassare, assistant professors in NTID’s Science and Mathematics Department, have worked together at NTID for 26 years.

Curriculum materials

After team-teaching a mathematics course with a text that they felt could be improved, Mary Lou Basile, associate professor in NTID’s Business Careers Department, worked with Dorothy Baldassare and Ann Bonadio, assistant professors in NTID’s Science and Mathematics Department, to design and write a mathematics textbook during spring quarter 1999.

The originally chosen textbook lacked explanations of the concepts involved in the course, “Math Applications for Business Technology.” As a result they began developing supplemental materials, using the textbook only for homework.

“It seemed unfair that the students were expected to buy an expensive book and not fully utilize it,” says

Bonadio. “We knew that we could write a book that was more supportive of our students’ needs than those available, but the constraints of our teaching schedules made this impossible. The short-term leaves gave us the opportunity to develop this book.”

This required text provides math instruction tailored for students in Business Careers programs.

“Our goal was to write a book that is easy to read while providing the students with mathematical understanding that will enhance their ability to succeed in business areas,” says Baldassare. “We feel that the book has already been a success in the classroom, and we are currently looking into the possibility of professional publication.”

“This book has enhanced the learning of business students taking this course,” says Basile. “In the process of

“This leave offered me the opportunity to focus on a new curriculum area that I feel will benefit not only the students on this campus, but ultimately will stretch beyond its borders through distance learning.”

Edward McGee, assistant professor, Business Careers Department

producing this book, I was able to gain more in-depth skills and knowledge of desktop publishing, which I now apply in my own classroom instruction.”

To support his classroom instruction, Vincent Ortolani, assistant professor in NTID's Business Careers Department, took a leave during winter quarter 1999. Ortolani developed student assignments for three departmental courses in text and document production.

“The assignments are designed to replicate business communication styles students will find on the job,” says Ortolani. “Unlike the textbook assignments, these materials do not give visual clues and specific directions to the students, which encourages them to use their own knowledge and skills in completing the work.”

Another leave that resulted in curriculum modifications was taken by Dr. Karen Christie, assistant professor in NTID's Cultural and Creative Studies Department, winter quarter 1999. Christie spent her leave reviewing multicultural literature to find appropriate novels that could be used in the “Explorations in Literature” course. She read more than 10 novels after reviewing titles of possible books from multicultural Web sites and other resources and selected *Kehinde*, by Buche Emecheta, as the most promising.

“I took this leave because many new multicultural texts have become widely accessible and studied,” she explains. “As our student population continues to be more culturally diverse and values the study of cultures other than their own, inclusion of works from Asian Americans and Native Americans, for example, is important in making our curriculum relevant to the world today.

“Novels used in Explorations in

Literature can be challenging for students,” she adds. “I developed in-depth study guides and vocabulary lists for each of the 21 chapters of *Kehinde* to help students with the novel's concepts.”

During her leave Christie also reviewed films and identified “Smoke Signals” and “A Thousand Pieces of Gold” as reasonably representative of minority cultures based on positive feedback of the films by members of those cultures. She now uses these materials in her teaching.

New curriculum

Brand-new courses also have resulted from professional leaves taken by NTID faculty members. During his leave spring quarter 1999, Paul Taylor, associate professor in NTID's Applied Computer Technology Department, developed materials to offer a new course in fiber optics cabling that has

been popular among students. At the end of the course, students take a certification test, and 45 students were awarded their certification during the 1999-2000 academic year.

The course offers material on the fundamentals of optics, how light travels down a glass fiber, splicing glass fibers together, attaching connectors to fibers, the various types of cables used in industry, and fiber optic standards.

“Only recently has the cost of fiber come down to be competitive with copper, the old industry standard,” explains Taylor. “Industry forecasts show that replacing copper with fiber will take place over the next 20 years, due to the labor-intensive nature of the changeover.”

“This is new cutting edge technology, not taught by many other colleges, that we expect will help create many job opportunities for our students,” says Donna Lange, chairperson of the Applied Computer Technology Department.

Three new courses that may lead to a Certificate in Entrepreneurship were developed by Edward McGee, assistant professor in the Business Careers Department, who used his fall quarter 1999 leave to work on the first course. After gathering information from various resources throughout the United States on other similar courses, he determined that the topics to be



Using the material Vincent Ortolani, assistant professor in NTID's Business Careers Department, left, discusses course requirements with students Tricia M. Poisson, center, and Nikunj Kumar (Nick) R. Patel.



Seeing the light Paul Taylor, associate professor in NTID's Applied Computer Technology Department, left, and ACT student Manuel Garcia-Castro work together on a cable in NTID's course in fiber optic cabling.

presented would include types of ownership, economics, accounting, marketing management, legal issues, and business plans. All of these topics will be taught in each course, with the level of difficulty increasing in course progression.

The "Entrepreneurship I" course provides an introduction to the basic concepts necessary to operate a business. During his leave, McGee was able to finish developing materials for the course, which include a course syllabus, course schedule, handouts, lecture materials that include PowerPoint slides, lecture notes, and unit objectives.

"This leave offered me the opportunity to focus on a new curriculum area that I feel will benefit not only the students on this campus, but ultimately will stretch beyond its borders through distance learning," says McGee.

McGee is currently working on the final two courses in the sequence, which he hopes to finish by the end of this academic year so that the courses can be offered beginning in academic year 2001-2002.

Curriculum and the Internet

Several professional leaves have focused on the use of the Internet in offering curriculum to deaf and hard-of-hearing students, reflecting the Internet's popularity and ubiquity.

Taking advantage of the growing presence of computers in students' work and lives, Julie Cammeron, associate professor in NTID's Cultural and Creative Studies Department, worked with Simon Ting, instructional developer in NTID's Instructional Design and Evaluation Department, fall quarter 1999 to enhance course materials for the course, "Making a Difference—A Social Science Perspective," which she offers online.

This course explores some of the core concepts found in the social sciences and uses biographical sketches of individuals who have made a difference in the lives of others. Cammeron includes biographies of Mother Teresa, Anne Frank, Helen Keller, Jackie Robinson, and Tiger Woods, and also presents homework assignments and other information on the site, found at <http://idea.rit.edu/MAD/index.htm>.

Another department that has added Internet-related courses to its curriculum is the Applied Computer Technology Department, where Donald Beil, professor, works on Internet-related activities. During fall quarter 1998, Beil, working with Simon Ting, developed new curriculum and materials for the course, "Internet Technologies II." In adding new sections on dynamic hypertext markup language (also known as HTML), he selected a new textbook and with Ting developed materials for instruction. He also added an instructional unit on e-commerce, in which individual students develop their own bookstores on-line through the Amazon.com associates program and offer items for sale through eBay, the on-line auction house.

"I view the completed leave as a successful opportunity for me to have uninterrupted time to study the Internet," says Beil. "I also believe it has and will provide significant benefit for our students through new and extended materials in our Internet Technologies II course and through distance learning."

"These courses are excellent examples of how the Web can be used to support teaching," says Lange.

The dean of NTID, Dr. T. Alan Hurwitz, places a high value on faculty leaves for professional development that are related to teaching, curriculum development, research, instructional development, and student development. Hurwitz credits the success of the leave program on sound fiscal management in providing funds and on flexibility demonstrated by department chairs and faculty members in working together to enable their colleagues to take leaves.

"I firmly believe that these leaves provide a wonderful opportunity for faculty renewal, rejuvenation, and creativity," says Hurwitz. "I am excited about the areas that our faculty have taken the time to work on during their leaves. The past two years have shown a variety of important areas that are being addressed by our faculty, including diversity, technology, entrepreneurship, new job market niches, textbooks, and other instructional materials that are relevant to student and curriculum needs."

Staying the College Course

By Pamela L. Carmichael

Most people view college as an important step toward a successful future, and indeed it can be. But before students can pursue their future success, they must succeed in college. This is no easy task. According to the National Center for Educational Statistics, on average across the United States, only 23 percent of students at two-year colleges and 46 percent at four-year colleges persist to graduation.

There are a variety of reasons why so many students fail to complete their college education, including financial difficulties, lack of preparedness, family situations, learning difficulties, substance abuse, and physical and mental health issues. Many factors are outside a college's control, but others can be addressed.

Although NTID's graduation rate—50 percent for students enrolled in sub-baccalaureate programs and 61 percent

“This one step—choosing a goal and sticking to it—changes everything.”

Scott Reed, political strategist

for students in baccalaureate programs—is better than the national average, over the last several years the college has marshaled additional resources to focus on student retention and success.

“The college years are an exciting but rigorous period of transition in a young person's life,” says Dr. Robert R. Davila, RIT vice president for NTID. “Students face many challenges, but at NTID, they don't face them alone. We are dedicated to providing students with the tools they need to succeed in their studies and persist to graduation.”

According to Dr. Gerard Buckley, NTID associate dean of student affairs, the college is looking at a wide range of

factors, curricular and co-curricular, to improve student retention and success.

Off to a good start

Chief among NTID's retention and success strategies is the First Year Experiences (FYE) effort, now in its third year. To ensure that freshmen effectively manage the challenge of adjusting to college life, have a successful first year, and continue on to receive a degree, each student's FYE is tailored specifically to him or her. Students work closely with counselors, faculty advisors, and other staff members to discuss their goals and select the appropriate courses and co-curricular activities. First-year students also participate in structured extracurricular activities designed by faculty and upperclassmen, who serve as peer teaching assistants, to introduce freshman to their fellow students and to the new experiences of college life.

In the fall quarter, incoming students enroll in a Freshman Seminar course that covers many college life issues: personal and social experiences, academic expectations and success, career decision making, and learning about campus resources and facilities.

“By designing a quality, extended orientation program, we give young people a good start on making NTID their home,” says Ellie Rosenfield, associate professor and FYE coordinator



Helping steer the course NTID Associate Professor and First-Year Experiences Coordinator Ellie Rosenfield, left, works with Natasha McCardle and other students in her Freshman Seminar class to help them successfully navigate their first year of college.

at NTID. “No college is right for everyone, but for those students who have found the right fit at NTID, we want to do everything possible to see that they succeed.”

Joining the effort to enhance student success and overall satisfaction is NTID’s Student Life Team (SLT).

“National research shows that students spend 75-85 percent of their time outside of classes,” says Karey Pine, SLT director. “How we structure that time significantly impacts the students’ experiences and success here.”

Having more faculty and staff on campus in the evenings and on weekends to interact with students and encouraging upperclassmen and student leaders to serve as role models in dorms are two ways that NTID’s SLT is working to improve student retention.

“Students want to make connections with others,” explains Pine, “and their ability to do that is a critical factor in their interest and willingness to stay in college.”

Rosenfield agrees, “Data show that even one significant relationship can keep a student in college.”

Social norming theory

Because students who engage in unhealthy or risky behaviors are less



Striking up conversations Dr. Gerard Buckley, NTID associate dean of student affairs, converses with students and staff at NTID’s annual bowling tournament, which provides an opportunity for off-campus student and faculty/staff interaction in a fun atmosphere. More than 200 students, faculty, and staff participated in this year’s event.

likely to succeed in college, a new approach to student life programming centers around social norming theory, which argues that individual behavior is often based on misinformation or misperception about what is considered the norm. The mistaken belief that everyone else is engaging in unhealthy or risky behaviors leads many students to do just that.

Determining what existing social norms really are on campus and promoting these to students helps reduce peer pressure to engage in risky

activities such as excessive alcohol consumption or using drugs. One of the primary social norming messages promoted this year is that most students at NTID/RIT do not engage in heavy drinking. Research shows that many students on campus drink no alcohol, and many more drink fewer than four drinks in a single sitting.

Combating misperceptions about risky behaviors to reduce perceived peer pressure to engage in those behaviors is essential, but equally important is developing alternative activities for students. NTID recognizes this need and is providing students with what are known as social mentoring opportunities—large scale, alcohol- and drug-free social events in the evening and late evening.

“First we’re educating students on what’s really the norm on campus, and then we’re providing them with fun alternatives to risky behaviors that aren’t the norm,” explains Pine. “These two cutting-edge programs, social norming and social mentoring, have been very well received by freshmen and upperclassmen. Many students have told me that they feel relieved from the perceived pressure to engage in negative behavior.”

“We’re on the forefront in the nation with these programs,” adds Buckley, “and we’re clearly tapping into something. Students are buying into the fact that they can have fun without drinking or using drugs.”



Making connections Student Life Team Director Karey Pine, center, chats with students at an event celebrating dormitory renovations. “Learning can happen anywhere on campus, not just in the classrooms,” says Pine. “Students are thirsty for conversations—they want to make connections with faculty and staff.”

Early warning

For those students who do begin struggling academically at NTID, last year the college piloted the Student Early Warning Notification (SEWN) program. If a student is not attending class or is having other problems, the professor sends the student an electronic message outlining his or her concerns. The student's counselor and the chairperson of the academic department are copied on the message.

"As soon as a professor identifies a student who is having a problem, we can begin working with the student to resolve whatever issues are interfering with his or her performance," explains Lee Twyman, associate professor and chairperson of the NTID Counseling Services Department. "This system, and everything we do, is based on an early-intervention model."

Because early intervention can be critical, information provided to NTID counselors by staff members in NTID's admissions department and freshman orientation programs is used to identify, before or soon after they arrive on campus, students who may need extra support. Many NTID counselors also teach Freshman Seminar classes, which allow them to see first hand how students are performing in the classroom.

"A student's performance in

Freshman Seminar is generally predictive of their overall college performance," explains Twyman. "If a student is having difficulty in Freshman Seminar, the counselor teaching that course can intervene right away and help the student develop a plan to correct the situation and succeed."

Despite all of the resources NTID has focused on student retention and achievement, students themselves are ultimately responsible for their own success.

"Students must be committed to setting and reaching their own goals," says Rosenfield. "Support is available, but students must work hard and reach out to faculty and staff for help when they need it."

Indeed, reaching out and making connections between students and faculty and staff will continue to be at the heart of NTID's retention efforts as the college evaluates current strategies and develops new retention initiatives.

"We know that the ability to connect with a social group, academic area, or mentor is a significant factor in students' success," says Buckley. "We are really focusing on making those connections with students, and it's exciting. You can feel it in the sense of community spirit that's growing. Our efforts are starting to pay off."

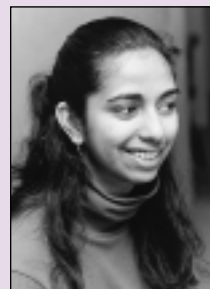
While NTID's retention strategies are carefully researched and evaluated for effectiveness, student feedback clearly demonstrates the success of the college's programs. Echoing the sentiments of their fellow students, Charmaine Mendonsa and Alim Chandani offer their perspectives on NTID's retention efforts:



Alim Chandani
"At Student Life Team (SLT) and NTID Student Congress (NSC) events, I met a lot of different people, especially older students, and I was able to adjust to college life through

the support of friends," says the 22-year-old Chandani from Northridge, Calif., third-year new media major and president of NSC. "If I hadn't participated in SLT events and NSC, I probably would have gone back to California."

"All of the experiences I've had here have helped make me who I am today. I'm grateful to NTID for providing opportunities for us to grow and prepare for the real world."



Charmaine Mendonsa
"Freshman Seminar class really helped me adjust to college life," says the 24-year-old Mendonsa from Jackson Heights, N.Y., who graduated

from NTID's Business Technology program in 1999 and is now pursuing a degree in NTID's Digital Imaging and Publishing Technology program. "I learned about time management and how to focus in the classroom and about life issues like living away from home and understanding relationships."

"Participating in Student Life Team events and NTID Student Congress and serving as a Student Development Educator have also had a really positive effect on me. I have met many new friends and older students who have shared their experiences with me. I've learned how to balance my social life and my education, learned a lot about leadership, and I understand myself better."



A caring guide Lee Twyman, right, associate professor and chairperson of the NTID Counseling Services Department, meets with Heather Pavey, a second-year psychology student. Twyman and other NTID counselors provide personal and career counseling as well as academic advising for students.

James F. X. Payne

by Susan L. Murad



In 1995, a career change for James F.X. Payne changed his life. Then an assistant vice president at Sprint Communications Company, Payne was assigned responsibility for marketing and selling telecommunications products for deaf users for the multibillion-dollar corporation.

“In my professional experience it was typical to have new assignments thrust upon you,” he says. “I pride myself on my ability to move quickly into new areas and own them. I approached this new assignment with my typical high energy, eager to learn and understand.”

Payne also inherited a large group of deaf and hard-of-hearing employees in the new assignment and found himself immersed in a culture that was different from his own.

“What I learned was the cultural differences, that at first seemed overwhelming to me as a hearing person, were actually indicative of the emerging cultural diversity that is happening all over the country today,” he says. “I learned to embrace this diversity, learn from it, and as a result, have become better at what I do. I also learned that all of us — hearing and deaf — are seeking the same thing; better and improved means of communication.”

Payne became a professional mentor and personal friend to a number of his deaf co-workers, including NTID alumni Angela Officer and Andrew Brenneman. Both Officer and Brenneman were serving as members of the Alumni Leadership Team for the college’s first fundraising campaign “Fulfilling the Promise: The Campaign for NTID” and spoke often with Payne about the college and

its mission. Their enthusiasm was contagious for him.

They soon enlisted Payne to become a member of The NTID Foundation board of directors. He was instrumental in Sprint’s donation of a V-Tel video telecommunications system to NTID, an integral part of the state-of-the-art Sprint Visual Communications Center that is located in the NTID Learning Center. The system is used to conduct conferences, meetings, and interviews through audio and video between deaf and hearing people anywhere in the world.

Payne, who is now senior vice president for government systems for Qwest telecommunications in Arlington, Va., earned a bachelor’s degree in business management at Georgetown University and a master of business administration in marketing at George Washington University. He serves on the board of directors at Gallaudet University and the University of Rochester, Infotest International, Global Information Infrastructure Commission, and the President’s Commission on

Critical Infrastructure Protection and the White House Partnership for Critical Infrastructure Security. He also served on Vice President Gore’s Net Day 1997.

Of his experiences at Sprint and with the foundation, Payne says, “I am very proud of my association with the deaf employees who were on my staff. I was perceived as accomplishing great things while assigned to the department, but in reality my success was nothing more than realizing that the leadership had always existed in that group. My job was to learn to listen and often get out of their way.

“It’s the same with the foundation. I listen to the leadership, the administrators, faculty, staff, and students. I learn from them and do whatever I can to help make their needs a reality. It is in this way that my association with NTID keeps reminding me I can learn so much from others.”

Gracie Coleman

by Susan L. Murad



students and their needs, and they made such an impression on me — I just couldn't get them off of my mind!

“At the time, Frank Blount of AT&T was a member of NTID's National Advisory Group (NAG), but he was leaving the company to work with TelCom in Australia, so I was asked to replace him on NAG. I immediately said 'yes.' It was an opportunity to learn more about NTID, and with each visit and each new person I met I became more deeply committed.”

Coleman began to hire NTID students as interns in various positions at AT&T. She hired other students for cooperative work experiences, donated TTYs to the college to support a TTY-A-Thon, and donated a variety of telecommunications products for the former product lab. It was then that she met former NTID Dean James J. DeCaro and Michael Catillaz, former executive director of The NTID Foundation.

“As soon as I met Jim and Mike, I knew there was no turning back,” she jokes. “These were the beginning days of the foundation's fundraising efforts. I got a

look at the college's strategic plan, and it so exceeded my expectations, it just blew me away. Here was an organization that stuck to its strategy and mission. They achieved what they said they would do. The plan was not just another document collecting dust on a shelf, and that's why I wanted to be a part of making things happen here. I believe in doing, not just talking about doing.”

Coleman proves herself as a “doer” in her role as chairperson of the foundation board and in her professional career. She spent 30 years in the telecommunications industry, starting with a summer job in high school as a long distance operator at the Chesapeake and Potomac Telephone Company (now part of Verizon), then working through the ranks at AT&T (she was one of the first women to become a materials management foreman, working on the loading docks with what she describes as “a very eclectic group” of co-workers). While she was working as a human resources business partner at Lucent Technologies, Coleman made a career change. She

is now senior vice president of Human Resources for Springs Industries, a leading manufacturer of home furnishings with annual revenues of \$2.5 billion headquartered in Fort Mill, S.C.

“One day I got a call from a recruiter in Charlotte, N.C., who wanted to know if I would be interested in making a change to a company called Springs Industries,” she says. “He was so surprised that I even knew about the company, but as it happens, my uncle was a long-time employee, and I grew up not far from the headquarters. It was a familiar place.”

As with her experience at Springs, Coleman quickly stopped being a stranger at NTID soon after her first visit. She is a woman with a wealth of experiences and a commitment to helping NTID's students achieve. Her ability to lead The NTID Foundation to exceed its \$11 million goal in the college's first-ever fundraising campaign proves that when she believes in something, she gives it her all. And when she's hooked, those around her benefit greatly.

“I'm hooked on this place,” Gracie Coleman proudly proclaimed in front of a group of faculty, staff, and friends of NTID recently. The dynamic chairperson of The NTID Foundation doesn't leave any room for doubt regarding her feelings about the college, its leadership, and particularly its students.

“In 1989 I was working for AT&T in the area of product design, manufacture, and sale for people with disabilities,” she explains. “That's when I came to NTID to gain a better understanding of what deaf and hard-of-hearing people wanted from telecommunications products. I met with and began thinking about the

Peter Thorp

by Susan L. Murad



Peter Thorp, vice president for university relations at Citigroup, has become an integral part of the success of deaf and hard-of-hearing students at NTID/RIT by strengthening the Citigroup/NTID relationship financially, technologically, and personally.

There was a deepening of that commitment when Thorp first visited NTID in 1994 and met a number of the Citigroup Scholars.

“People in the mainstream will never understand the challenges or rewards until they visit here,” he says. “That visit was a personal learning experience that can only be described as phenomenal. I couldn’t help

but come away with a deepening sense of purpose. To not be personally involved with NTID would have been a great mistake.”

Financially, the Citigroup Foundation has increased its commitment to the Institute. Since its establishment in 1988, the foundation has provided financial support to more than 126 students enrolled at NTID and those pursuing baccalaureate degrees in RIT’s College of Business. In addition, Thorp established the Citigroup Awards for Excellence, which are presented to high achieving deaf and hard-of-hearing students in any of the colleges of RIT.

“When I met with the students who received Citigroup scholarships, I was amazed at their stories,” he says. “The impact of these scholarships on the students was immense. There was an emotional aspect that I hadn’t expected. Their gratitude had as much to do with Citigroup’s belief in them as did the actual dollar amount of the scholarship.”

Not satisfied with only providing financial support, Thorp recognized the importance of keeping the

college technologically competitive with other colleges and universities. He arranged to provide NTID with VIEWnet, a video teleconferencing system, which uses a high-speed telephone transmission line, television camera, microphone, personal computer, and software, allowing students who are searching for jobs to interview with several dozen major companies without leaving campus.

Thorp has taken the corporate commitment of Citigroup to heart and became personally involved in the mission of NTID through his membership on the National Advisory Group (NAG).

“In the beginning, I felt that Citigroup’s involvement with NTID made good business sense, and I still do,” he says. “In this new millennium, business and industry must be aware of the need to develop bright young talent from diverse backgrounds and experiences. This not only makes good business sense, it is ethically sound.

“I was personally, deeply honored to be asked to become a member of the NAG,” he says. “I’m pleased

that the group feels I can bring something to the table. The commitment by everyone associated with NTID — faculty, staff, administration, and the advisory group — is based on a single purpose: to ensure that young deaf people have full access to the best possible education and opportunities for meaningful careers when they graduate.

“My colleagues on the NAG and I have the opportunity to make additional connections that will benefit the college. We come in twice a year, listen to what is being done and what needs to be done, and help determine how we can best help NTID reinvest for the future.”

For Thorp, who is scheduled to officially retire from Citigroup in May 2001, the future is full of exciting possibilities.

“I plan to develop an even greater enjoyment of life,” he smiles. “I am committed to putting something back into the system that has given me so much. I will still remain a member of the NAG for as long as they will have me.”

Dr. Olga Michele Welch

by Susan L. Murad



A summer job changed the course of Dr. Olga Michele Welch's career path. At age 19, she was a summer worker at the offices of the National Association of the Deaf (NAD) in Washington, D.C., where she had attended nearby Howard University, majoring in history.

"I knew I wanted to be a teacher ever since I was a young child," she says. "But I didn't decide on the field of deaf education — the decision found me. It turned out to be life changing."

Three leaders in the deaf community — Al Pimentel, Terry O'Rourke, and Fred Schriber — saw in Welch a potential that they were not about to let pass by.

Her future mapped out, Welch had received a scholarship to Oxford University in England and had two weeks left at NAD before leaving. On a Friday afternoon, the three men asked her to consider studying deaf education at the University of Tennessee, Knoxville (UTK). They even suggested the possibility of a full scholarship.

"I thought their proposition was impossible," says Welch, "but when I arrived at work Monday morning, they handed me an acceptance letter to UTK with a full scholarship! I'm still amazed that they were able to pull it off. Remember, this was before there was large-scale access to TTYs, and fax machines and e-mails were non-existent!"

Welch went on to earn her master's and doctoral degrees at UTK. She taught at the Model Secondary School for the Deaf (MSSD) in Maryland and at the Tennessee School for the Deaf. Her first boss at MSSD was Dr. Robert Davila, now RIT's vice president for NTID. As chairperson of NTID's National Advisory Group (NAG), Welch is back with many of her

former colleagues.

When Welch is not chairing the NAG, she is back in Tennessee heading the Department of Counseling, Deafness and Human Services at UTK and working with graduate students. She provides them with her unique perspective on education in general and educating deaf people in particular.

"Over the years I've learned that the more you know, the less you know," she says. "I was going to be the one who would 'empower deaf people.' That was an arrogant attitude! Now I realize that my job is to help create an environment of collaboration.

"When instructing students in the education of deaf people, the most important lesson I can share with them is to hold on to their core integrity. I tell them 'you must identify that piece of yourself that will not be bought, bartered, or charmed away — your soul. It is the part that you will fight for, leave a job for, and even be willing to die for. You will know when people get close to it, and you won't let anyone take it from you.'"

Welch brings that same

integrity to her work on the NAG as the organization provides strategic advice on educational issues for NTID.

"It is work that I have great respect for and belief in," she explains. "It allows me to serve in a way that fosters collaboration and collegiality.

"We on the NAG board must be careful not to produce a laundry list of recommendations that cannot be met, but to bring our advice as people who are not at NTID every day and still have a caring interest in the institution. It's not window dressing — we use our meetings to learn more about the institution and to facilitate and support the mission of NTID. We learn much more about our planning for the future through open conversations with everyone at NTID, then use our connections with business and industry, thus feeding back into the classroom."

Welch says she never knew teaching would lead her to such a fulfilling life.

"At the NAG meetings, Al Pimentel enjoys seeing me in this leadership role," she says. "He'll say to me, 'We knew you were a leader when you were 19!'"

Teachers Teaching Teachers: NTID's Instructional Technology Consortium

By Frank A. Kruppenbacher

The process of teaching and learning toward the acquisition and application of knowledge and skills has changed little since the introduction of chalk and blackboard.

Students, like those at NTID, typically acquire facts and information from knowledge masters. This knowledge is tested, refined, and examined to the satisfaction of teacher and learner. In an ideal world, mastery successfully passes from one mind to another, and the limitless life cycle of learning and knowing continues.

NTID, by design, incorporates technology to aid the teaching and learning process. With its specialized facilities and innovative pedagogy to teach deaf and hard-of-hearing students technical and professional careers at the mainstream college level, NTID, as it exists on the RIT campus today, is a unique college representing one of the newest and most effective programs to blossom on the American university landscape in the last four decades.

Right from the start leaders at NTID have known that in order to positively influence student development and learning outcomes, substantial and ongoing investments must be made in the area of teacher development. Faculty must be provided resources and opportunities to develop and refine the delivery of innovative instruction for RIT's deaf and hard-of-hearing students.

"NTID takes special pride in being innovative and creative in serving students," says Dr. T. Alan Hurwitz, dean for NTID. "We have made bold



Learning from each other Colleen Pouliot, education specialist in NTID's Department of American Sign Language and Interpreting Education, left, and Kenneth Hoffmann, associate professor in NTID's Department of Digital Imaging & Publishing Technology, confer during an ITC studio session on Web-based instructional strategies.

moves to come up with our own unique methods and support for faculty development.

"We have been very deliberate over the years to increase support for faculty development at NTID. Our strategic planning process identified an even stronger position in this area, and three years ago we acted on it."

The plan called for instructional technology support housed in a year-round learning environment that encourages faculty to develop further technology skills. This effort would allow faculty to access instructional development and media professionals for consultation and advice and allow faculty and staff to try new and emerging technologies for classroom use and for the development of

instructional materials.

This vision became reality in 1998 when the Instructional Technology Consortium (ITC) was formed. Today the ITC functions to improve student learning and the practice of teaching by putting new instructional tools directly into the hands of faculty. The ITC nurtures an environment in which educators can keep pace with changing pedagogical needs of students in the context of a model for excellence in the application of instructional technology in the education of deaf and hard-of-hearing students.

Members of the ITC form a steering and implementation committee made up of faculty from across the college of NTID. ITC members facilitate dialogue so that the views, concerns, and ideas of members of NTID's centers and the ITC planning and implementation process are shared. Through the ITC, teaching faculty consider the issue of encouraging and assessing the innovative application of instructional technology tools in service of productive learning throughout the college, all of higher education, and the field of education of deaf and hard-of-hearing students at the college level.

Dr. E. William Clymer, associate professor in NTID's Department of Educational Resources, coordinated NTID's ITC from 1998–2001 and worked with the consortium to plan, implement, and assess ITC activities. Clymer's primary interest is the determination of how technological innovations can be applied to solving instructional and administrative



Teachers as students Michael Kleper, right, former NTID faculty member and now Paul and Louise Miller Distinguished Professor in RIT's School of Printing Management and Sciences, leads an ITC studio discussion on the topic of instructional technology with faculty colleagues.

problems in educational environments serving persons who are deaf. His current work includes instructional design, management and theory, interactive multimedia, and distance learning technologies.

"The ITC functions as an incubator for ideas," says Clymer. "We are creating opportunities for teachers to discuss and learn from one another about strategies for maximizing the 'learning benefits' of using instructional technologies as teaching and learning tools."

The structure of the ITC consists of four content strands — the World Wide Web, visual presentation, rapid development tools for building Web-based courses, and Blackboard, a communication software product that students and faculty use to participate in courses offered over the Internet. These strands are the general topics for workshops, or ITC studios as they are better known, focused on using instructional technology solutions for teaching and learning projects.

Studio participants submit a brief proposal that outlines their instructional project as it directly relates to educational interactions with students, along with their evaluation plan assessing the impact of the project on student learning. Participants are expected to attend all five, full-day studio sessions. ITC studios are typically offered in the spring following RIT's commencement with two summer sessions occurring in the middle of June.

"The format of ITC studios provides participants with demonstrations of software applications and instructional technology hardware," Clymer explains.

"The majority of time spent during the studio week is devoted to individual faculty projects. Individuals from CRTL with instructional technology expertise are available during studio time to provide consultation and support.

"It is important to emphasize that we have our own skilled teachers and instructional developers from throughout NTID and the rest of RIT as facilitators of these strands in the ITC studios," he adds.

Unique to the ITC is the provision of a visual materials presentation strand in American Sign Language (ASL) only. No interpreters are provided. Participants communicate in ASL, and as with other studios, the mornings are devoted to small group presentations

and discussions while the afternoons are used for individual projects.

ITC studios have appealed to a range of faculty and staff at NTID, from so-called techno-wizards to technophobes. Solange (Sally) Skyer, associate professor in NTID's Counseling Services Department, resided in the latter group until just recently.

"Until the ITC came along, I did not consider myself to be a technical person," says Skyer. "It took me three years just to get on the World Wide Web. I think it's important to show students that we as teachers are willing to take risks so they, too, will experiment and take risks in order to further their own learning and understanding."

At the other end of the paradigm is



In the lap of instructional technology From left to right, Nora Shannon, coordinator of student teaching in NTID's Master of Science in Secondary Education of Students Who are Deaf or Hard of Hearing, Camille Aidala, instructional developer in NTID's Department of Educational Resources, and Valarie Yust, assistant professor in NTID's Audiology Department, become familiar with portable laptop computers in an ITC studio.

Victoria Robinson, assistant professor in NTID's Science and Mathematics Department. She says that her students were reared on technology and instructors need initiatives like the ITC to keep pace.

"Five years ago, it was problems in a book," says Robinson. "Today, the Web is the Gutenberg Press of our era. A Web site I developed illustrates problems from the book using Quick-Time movies, so they're not just words on a page anymore. After we do physics experiments in class, the students are able to perform them again and again from simulations I made with special modeling software. Technology gives students infinite opportunities to learn, but it never substitutes for the actual experience in the classroom."

One area truly capitalizing on innovative applications of instructional technology is NTID's Digital Imaging & Publishing Technology (DIPT) program. David Hazelwood, assistant professor, and other DIPT faculty attend ITC studios as a component of ongoing professional development plans. Hazelwood has also been a facilitator of ITC studios and says that a high level of commitment is critically important.

"Every DIPT instructor has attended ITC studios," says Hazelwood, "and for one simple reason — we cannot forget NTID/RIT's 'T' for technology. In DIPT



High tech huddle From left to right, Simon Ting and Carol Petote, instructional developers in NTID's Instructional Design and Evaluation Department, team up in an ITC studio with John-Allen Payne, associate professor in NTID's English Department.

we are tied to the high tech machinery of our craft. Rather than resist it or become overwhelmed by it, we embrace it because every time we teach with it we are constantly learning."

Michael Schwartz, visiting instructor in both NTID's Department of Cultural and Creative Studies and RIT's College of Liberal Arts, has attended two ITC studios since 1999. According to Schwartz, instructional technology is essentially useless without content.

"It's like an automobile without fuel," says Schwartz. "Once a teacher gets familiar with the tools, time can be devoted to critical thinking on creative content solutions."

Schwartz maintains a sharp perspective on the increasing applications of instructional technology, at NTID or any college for that matter.

"I learned many things in ITC studios, and they boil down to this: No amount of technology can substitute for good old-fashioned human interaction and the power of the mind," he says.

In order to maintain relevancy and effectiveness, the ITC is in the process of reassessing itself, evaluating the long-term influence of

ITC studio participation on teacher and student behaviors in the classroom while moving forward with new content strands and studio formats.

The consortium will play a key role in the International Symposium on Instructional Technology and Education of the Deaf: Supporting Learners, K-College, hosted by NTID in June 2001. Content strands for the symposium include: Using Technology to Support Learning; Measuring the Impact of Technology in the Teaching/Learning Process; Using Technology to Support Student Transition to the Workplace; and Online and Distance Learning.

"The timing and fit are perfect," says Clymer. "Our ITC studios will be a part of the symposium. It's an exciting opportunity for us to extend our knowledge and innovations to others. Who knows what new ideas and thinking will result?"



"It's official" Michael Schwartz, left, instructional faculty in NTID's Department of Cultural and Creative Studies, and Veronika Talbott, career development counselor in NTID's Counseling Center, proudly display certificates they earned through their participation in week-long ITC studio sessions.

Editor's Note:

For more information on instructional technology initiatives at NTID, visit the following pages on our Web site:

NTID Instructional Technology Consortium,
www.rit.edu/~ntidite/

Instructional Technology and Education of the Deaf: Supporting Learners, K-College: An International Symposium, June 25 – 29, 2001,
www.rit.edu/~techsym/



"The Rustle of a Star," a multi-media production written and directed by Bonnie Meath-Lang, artistic director in NTID's Cultural and Creative Studies Department, was staged in the Robert F. Panara Theatre February 8-10, 2001. This tribute to Robert F. Panara, RIT's first deaf professor and now professor emeritus, is a fantasy based on the literary and historical influences on his life. The title is taken from the last line of Panara's most famous poem, "On His Deafness," an ode styled on the famous poem by John Milton, "On His Blindness."

CHANGE SERVICE REQUESTED



Diggin' the arts! Groundbreaking ceremonies were held November 3, 2000, at the future site of the Joseph F. and Helen C. Dyer Arts Center at NTID. Among those attending were, from left to right: Robert Skaggs, second-year applied computer technology student at NTID and a recipient of the Dyer Scholarship, representing the Dyers; Gracie Coleman, chairperson of The NTID Foundation; Elizabeth W. "Cookie" Williams, foundation board member and donor; Dr. Robert Davila, RIT vice-president for NTID; and Dr. Albert Simone, RIT president. Construction on the center, located within the Lyndon Baines Johnson Building, began in December and is scheduled to be completed Fall 2001.