The National Technical Institute for the Deaf and How it is Changing Education

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Abstract

The National Technical Institute for the Deaf is an integrated branch of Rochester Institute of Technology that fully incorporates Deaf students into a technical college curriculum. This innovative program is the first to provide a technical education to Deaf college students. Through its diverse history, NTID has already created one of the most impactful and successful environments for Deaf and hard of hearing college students. The methodology is unique, and the school environment is special and creates a special place for students to learn. Constantly leading the foreground in educational and technological innovation, NTID has created an inclusive learning environment for deaf and hearing students alike. The connections formed at RIT transcend those of other universities and have impacted the Rochester community in a special way other universities have not.

What are RIT and the NTID

Rochester Institute of Technology is one of the world's most accredited postsecondary technical institutions in America. It has received many awards and accolades as one of the nation's leading technical innovators. NTID, or the National Technical Institute for the Deaf, is one of seven colleges within Rochester Institute of Technology (Home Page, n.d.). Rochester Institute of Technology is located in Rochester, New York, a hub for deaf and hard of hearing individuals. Rochester has a rich history as a center of innovation for deaf schools, with one of the country's first deaf schools establishing there in 1876.

Rochester has one of the largest deaf communities in all of the United States because of the implementation of Rochester School for the Deaf in 1876 and the migration of families with deaf individuals to the area for schooling (History, n.d.). Now, Rochester Institute of Technology and the National Technical Institution for the Deaf have brought even more Deaf Culture into Rochester. More and more deaf and hard of hearing individuals are moving to or staying in Rochester after graduating from Rochester Institute of Technology. Since the Rochester School for the Deaf and the National Technical Institute for the Deaf were both established in Rochester, deaf and hearing communities have been fully diversified and integrated for years. In Rochester, deaf individuals do not need to worry about closed captioning in public spaces, interpreters being unavailable in hospitals, or shopping where nobody knows sign (The Daily Beast, 2019). Instead, deaf individuals can freely and confidently go into the community without fear or worry that nobody is capable of communicating with them.

History and Development of the National Technical Institute for the Deaf

The National Technical Institute for the Deaf is a part of the larger university, Rochester Institute of Technology, but neither are limited to just deaf or hearing individuals. Both colleges create an inclusive atmosphere and are creating trajectories of a blended-hearing community.

In 1964, a bill was proposed to Congress about ways to increase Deaf employment. This bill would fund a nationally sponsored technical postsecondary educational opportunity for deaf and hard of hearing students, partnering with a preexisting university and creating a higher education opportunity for the deaf (Burger, 2023). After the bill was unanimously passed in the House and Senate, colleges across the United States began applying to be the sponsor of this new college. Rochester Institute of Technology was selected after a long process narrowing down other institutions' applications, and the National Technical Institute for the Deaf was established. In 1968, the first students attended the National Technical Institute for the Deaf (History of NITD, n.d). The first majors offered were architectural drafting, mechanical drafting, machine tool operation, and office practice and bookkeeping (Kelly, 2020). Since its establishment, the National Technical Institute for the Deaf has now increased its offering of majors to over 90 undergraduate degrees (Home Page, n.d.), began offering associate's degrees, and admitting international students, as well as receiving countless awards and recognitions for the school, faculty, and students (History of NTID, n.d.).

Currently, the National Technical Institute for the Deaf has multiple sister schools that they are partnered with internationally to bring education to deaf and hard of hearing international students. The university offers associate, bachelors, graduate, accelerated bachelors and masters, and an interpreting program across various fields of study. Due to the partnership with international colleges and universities for the deaf and hard of hearing, studying abroad is an available opportunity for RIT and NTID students to study internationally in a safe and

inclusive atmosphere that understands how to cater to their learning needs (Home Page, n.d.). Students can choose between "China, Czech Republic, Russia, Hong Kong, Thailand, Japan, South Korea, Vietnam, the Philippines, Cambodia, Myanmar, and Malaysia" as places to study, and this program has helped Deaf individuals abroad find employment opportunities as well (International Educational Outreach).

Advancements in Deaf Education and Inclusivity at NTID

NTID began as only a cluster of five majors, but has since grown and expanded into one of the nation's largest higher institutions for the deaf and hard of hearing. Now, there is an extremely wide range of majors for students at NTID and RIT, ranging from business to engineering to the arts. Many programs at RIT have been nationally recognized and awarded, and the American Sign Language Interpreting Program was recently accredited by the Commission on Collegiate Interpreter Education (Kelly, 2020).

The approach adopted by RIT since the founding and establishment of NTID has paved the way for deaf educators internationally. NTID has developed methods to increase deaf and hard of hearing student's learning potentials in the classroom and continue to add more as they continue to research and conduct trials on new ways to teach deaf and hard of hearing students. RIT has created a webpage for faculty to access where they can publish the methods they use in their classroom and how it works, as well as view other faculty's contributions. This collaborative effort by RIT instructors helps innovate new ideas and concepts to be used in the classroom, as well as determine what does and does not work in the classroom.

An important concept used at RIT is Universal Design. Universal Design is the idea that a space is accessible and usable by anyone and everyone without needing special accommodations. Within learning, there are three principles: an educator must provide multiple means of

representation, multiple means of action and expression, and multiple means of engagement (Hartmann). Universal Design in learning recognizes that each student has a unique way of processing and understanding information, so educators provide multiple means of understanding through a variety of tactics- from interactive assignments to solo projects to different learning environments. NTID utilizes Universal Design both in the classroom during class time and within the classroom itself. Many professors use Universal Design in learning as they teach students, but the classrooms they are using also use Universal Design within the architecture. "There are only a handful of universities around the world where universal design, or inclusive design, or design for all is even an elective within the professional curriculum," and RIT is one of them (Ostroff). An example of Universal Design in daily life are wheelchair-accessible ramps on sidewalks. Anyone can use a ramp to cross the road, regardless of ability, and nobody needs any sort of extra help in order to use it. RIT utilizes Universal Design in the classroom. Since RIT encompasses NTID as well as other colleges within the university and caters to deaf, hard of hearing, and hearing students, Universal Design ensures that all spaces can be used by all students. The RIT Technology Department has designed a classroom with ten interactive screens for personalized and individualized learning (Finding Ways to Enhance, n.d.). This is a wonderful way to let instructors practice creativity on how to use these universally friendly spaces to best suit the needs of their classrooms. The implementation of Universal Design across RIT's campus has helped the institution lead other schools in the right direction through their continued design and research into more accessible classrooms.

One experimental research method being developed at NTID that is being implemented by deaf instructors across the country is known as the "Eyeballs Method." This involves tracking

students' eye movements as the lecturer teaches to make sure all students have finished reading the signs and watching the interpreter sign the lecture (Finding Ways to Enhance, n.d.). This strategy was developed in a blended classroom of both hearing and deaf students where the lecturer used spoken language with the assistance of an ASL interpreter for deaf and hard of hearing students. Since the students using the interpreter had to watch the interpreter, they did not always have time to read the slides the lecturer was using, unlike the hearing students who could both listen and read simultaneously.

Another method developed at NTID is the "Flipped Method." The Flipped Method is just as the name sounds, flipped. Rather than showing an image on the screen and lecturing about it after students have seen it, the Flipped Method begins with an explanation of the concept, followed by the image. This method was designed to give deaf and hard of hearing students to digest the information they were just told and make sense of the concepts with the image. The Flipped Method utilizes a time of reflection after students see a signed or captioned explanation of the topic discussed in order to further understand it (Finding Ways to Enhance, n.d.). Both the Flipped Method and Eyeball Method have been proven by RIT studies to improve the retention and understanding of students' knowledge by deaf and hard of hearing individuals (RIT/NTID Investigating Ways, 2017).

NTID is a special program because of its outreach into the Rochester, New York community. NTID has established programs for deaf and hard of hearing students in the Rochester area, ranging from middle school to high school. These programs range from clubs to camps to group learning opportunities, and are highly utilized by the younger deaf community because of the presence of Rochester School for the Deaf located nearby. NTID also offers programs to individuals with any sort of connection to deafness. Whether they are deaf, work

with deaf people, or just want to educate themselves, NTID conducts professionalism and training workshops for people to learn about deafness in professional settings (Burger, 2023). Programs like these are few in number, and many employers are not properly trained or educated on how to work alongside the deaf or hard of hearing. With the implementation of such opportunities for the community, NTID is combating ignorance and discrimination against deaf people in the workforce.

Campus Engagement

Students at RIT have many ways to become involved on campus. With over 300 clubs and 13,000 events per year, there are countless opportunities for students to meet people, improve their connections, and have fun. RIT has mastered how to fully integrate and accommodate deaf and hard of hearing students with hearing students. It is not uncommon to see hearing and deaf students signing back and forth on campus, or to have classes with both hearing and deaf students working and learning alongside each other. RIT has also implemented "No Voice Zones" across campus, where American Sign Language is mandatory (Student Life, n.d.). This inception has provided deaf and hard of hearing students a special place on campus where they know everyone will be speaking their language. The "No Voice Zones" also provide hearing students with the opportunity to practice their American Sign Language skills and become more fluent in a comfortable space. RIT has created a unique culture on its campus because of the intermingling of deaf, hard of hearing, and hearing students on its campus. Students at RIT are not impacted by their differences in hearing because of the fusion of cultures on RIT's campus.

Career Preparation and Support Services

RIT and NTID produce some of the most successful professionals in the country. Over 96% of graduates have secured jobs straight out of college. Students also have the opportunity to

participate in over 70 Masters Programs as well, giving them another option after undergraduate graduation. RIT has very broad fields of study, so graduates find jobs in almost every sect possible (Degrees, n.d.).

RIT has many programs established to help make the transition from high school to college and from college into the workforce as seamless as possible. Career Exploration Services allows for first year students to explore potential majors and career paths. They also provide additional help for deaf and hard of hearing students who may need more academic preparation in order to handle the rigorous coursework at RIT (Career Exploration Studies, n.d.). This accommodation that RIT offers to deaf and hard of hearing students provides equity to those who may have come from flawed education systems where they did not receive the education they deserved because of their hearing ability. RIT is special by recognizing that there is room for improvement in the education system and that students' backgrounds do not dictate their intelligence or potential.

Another service that RIT offers is the Communication Studies and Services Department. This department aims to help students enhance their professional communication skills, whether it be in spoken English or American Sign Language. The Communication Studies and Services Department has multiple branches, offering audiology services, speech language services, eye and ear clinics, and courses that teach a broad range of skills, such as problem solving, interpersonal skills, and cued American English (Communication Studies and Services, n.d.). This department works with students to develop their professionalism in multiple sectors of life, from learning how to ask for hearing accommodations to how to read body language, the Communication Studies and Services Department teaches students how to be prepared.

After graduating, many deaf people find it hard to secure a job, even if they hold an advanced degree. Some employers discriminate against deaf and hard of hearing candidates because they do not want to be responsible for providing additional support services those individuals may require to do the job, even if they are the most qualified candidates. However, Rochester, New York is one of the most deaf friendly communities in America, so job discrimination happens on a much lesser scale than in other places. Many graduates stay in the Rochester area, so alumni connections help many deaf and hard of hearing individuals find and secure jobs after graduation, with over 96% of graduates having a job immediately after graduation (Degrees, n.d.). NTID has a Co-op and Career Center that is dedicated to helping current students and alumni find job and internship opportunities, and many degrees require students to co-op or internship with a company, often leading to job offers once they graduate (NTID Co-op and Career Center, n.d.).

Notable Alumni

RIT and NTID have produced many successful alumni who have had influential careers and made huge impacts on the deaf community as a whole. T. Alan Hurwitz was a NTID graduate who became the president of both NTID and Gallaudet University. While being the president of both universities, Hurwitz also traveled the country as a deaf advocate, lecturing on civil rights for the disabled and deaf culture (T. Alan Hurwitz, 2022). Another successful alum of NTID is Michael J. Rizzolo, the president and CEO of Interpretek, a highly successful interpreting company out of Rochester, New York. Rizzolo was an innovator while attending RIT, and used the skills he learned there to help him from one of the country's most successful and widespread interpreting programs. Barbara Wood, a NTID alum, lost her hearing and grew up in a time where deaf people were not guaranteed any sort of accommodations. She fought for

legislation mandating deaf access to interpreters and equal education. She was influenced strongly by her experience at NTID because she had not been given an opportunity to learn sign until attending the school. Wood was determined that no other student be denied the access to education that she was, and she dedicated her life to changing the legislation (Distinguished Alumni Award, n.d.). Chuck Baird, a Deaf artist, graduated from NTID and began exploring deaf culture through various artistic mediums. Celebrated by many, Baird expressed deaf culture and shared it with the world through his beautiful art (Remembering Chuck Baird, n.d.).

Benefits of Deaf- Focused Education

At NTID, many benefits exist for deaf and hard of hearing students because it was specifically designed to cater to them. While many deaf and hard of hearing students choose to attend other universities for predominantly hearing students because they are guaranteed accommodations, there are many benefits that deaf colleges have that other institutions do not. At schools designed for the deaf, like NTID, educators are specifically specialized to teach deaf and hard of hearing students. Other institutions would just provide an interpreter, while NTID goes above and beyond to guarantee that every deaf and hard of hearing student has an equitable education. RIT has many resources for implementing new and inclusive teaching methods, such as the database all faculty have access to for comparing teaching techniques. RIT is also a highly diverse institution being named the 2021 Higher Education Excellence in Diversity Award and the 2021 Diversity Champion (Careers at RIT, n.d.).

Rochester, New York is a huge hub for deaf and hard of hearing individuals. Since it has both RIT and Rochester School for the Deaf, the deaf community is very strong there. With over 60,000 deaf and hard of hearing people in the Rochester area, deaf clubs and organizations are plentiful (About RRCD, n.d.). A benefit of going to a school for the deaf is the deaf culture that

comes with it. The unfiltered access to the deaf community is unparalleled, especially in Rochester. Rochester has the highest per capita percentage of deaf and hard of hearing people in its population out of the entire United States at 3.7%. Even more importantly, 61.4% of college aged individuals in Rochester are deaf or hard of hearing (Staff, 2012). These numbers are extremely uncommon compared to the rest of the country, even where other deaf schools are. Rochester is a special area for deaf students and provides a unique atmosphere for deaf and hard of hearing students to learn and grow.

Schools designed for the deaf have more accessibility than those that are designed for hearing students. At schools designed for the deaf, classrooms utilize semi circle desk configurations and smaller class sizes help increase accessibility for communication and create opportunity for more personalized education (Deaf Schools, n.d.). At RIT, there are over 100 deaf employees. This is special to schools for the deaf because many predominantly hearing institutions do not want to hire many deaf employees because they would be responsible for providing accommodations for them. RIT has many deaf employees, and this benefits deaf students by creating one more layer of understanding and relatability between students and instructors, allowing them to have a more quality education (Staff, 2012).

Impact on the Deaf Community

NTID has made tremendous accomplishments for the deaf community. In 2022, NTID won the Zero Project Award for the creation of *Way Around You*, a platform aimed at increasing literacy and access to stories for deaf children (Kim, 2022). NTID is constantly raising the bar and creatively increasing accessibility for the deaf community. *Way Around You* is preserving deaf stories and traditions by sharing them with the younger generations through an online

platform. This not only helps deaf children learn to read, but also shares the stories and fairytales that are deaf-centered and specific to the deaf community.

RIT has made it a priority to make accessibility for all students at the forefront of everything. Students at RIT have access to over 130 interpreters, and experienced interpreters at that, with each averaging around 14 years of experience (Jaschik, n.d.) RIT also provides 57 real time captionists, over 400 trained notetakers, and upwards of 196,000 hours of supportive services provided (Access and Support Services, n.d.). These amounts of accessibility measures are unheard of at predominately hearing institutions.

At schools that are not designed with deaf and hard of hearing students in mind, there are many automatic barriers that students face. The American School for the Deaf noted that "deaf students in public schools that prefer to use ASL may be paired with an interpreter. This can create a barrier since all information must be interpreted; communication is not direct" (Deaf Schools, n.d.). Deaf students are immediately faced with adversity at schools that are not deaf-centered and often will not form relationships or bonds with their teachers or classmates that would have been made at a deaf-centered school.

Discussion and Conclusion

RIT and NTID have changed the way deaf students go to school. The establishment of NTID within RIT has transformed deaf education for the better. NTID has created a community in Rochester, New York unlike that of any other city in America. The community is completely blended between hearing and deaf cultures, and deaf and hard of hearing individuals feel confident and comfortable living, working, and thriving there.

The countless learning and teaching methods that are constantly being produced out of NTID are improving education for the deaf and creatively solving problems that have never been

tackled before. RIT has successfully branched the divide between hearing and deaf students to create an inclusive environment where students from different backgrounds flourish by coming together regardless of their differences. RIT's engagement with the public and deaf community in Rochester sets it apart from other schools. They are improving the access to education and opportunities for the deaf before they even have the opportunity to apply to college.

RIT's ease for students to be involved is also a rarity for many deaf students. Often, deaf and hard of hearing students are left out and are not included in clubs, events, and social gatherings, but RIT has an inclusive environment that cherishes participation by deaf students. This ease of involvement for students pushes them out of their comfort zone, and has created some of the most successful graduates in the country. Through the different departments and resources that NTID offers students, they graduate prepared and confident in their abilities.

Colleges for the deaf may not be for everyone, but they certainly provide an experience for deaf students that no other schools can offer. With specialized educators and increased accessibility, schools for the deaf like NTID provide the most prepared education for deaf students. Due to the increased accessibility and deaf-centered education, the deaf community surrounding RIT is very strong. After students graduate, they already have a support system and community in their post-graduation life, which is something most people do not have, regardless of education or hearing ability.

In conclusion, RIT's implementation of NTID has only improved the equity of education between deaf and hearing students. RIT has led to many breakthroughs in deaf education and accessibility that would not have been possible without the legislation that passed in 1964 to increase deaf employment. The leaders and innovators that have come out of RIT and NTID

have changed the world and deaf community for the better, and future generations will always know the contribution that NTID has made.

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