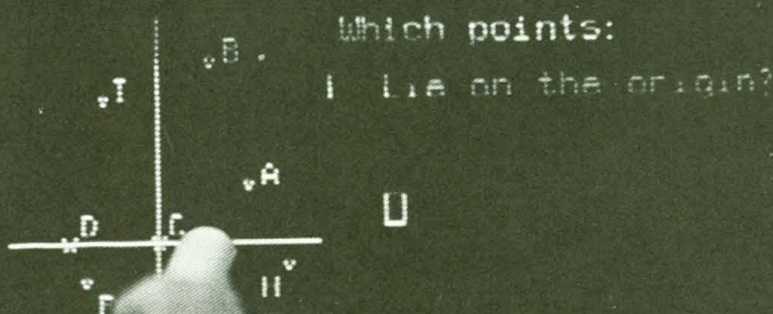


# ntid FOCUS

June, 1970

Publication of the National Technical Institute for the Deaf  
Rochester Institute of Technology



IBM 1510

## Computer Assisted Instruction at NTID

# INDIVIDUALIZED LEARNING: NTID and the computer



From one console, the student has available to him a variety of courses, such as algebra, demonstrated here by Doreen Palmieri.

One key to CAI's success is extensive planning by staff members. Left to right are Paul Vonhof, Maggie Moynihan, and Louise Kerner.

"You hear a lot of talk these days about this idea of individualized instruction. Well, in addition to its other advantages, CAI is one place where it is really happening; the student actually gets truly individualized instruction!"

That was Bill Williams's immediate response to the question, "Why Computer Assisted Instruction?"

William H. Williams is acting director of NTID's Center for Computer Assisted Instruction, or, as it is more commonly known, CAI.

As implied by the title, CAI is a mode of instruction in which a computer is employed in a primary capacity. The development and utilization of CAI stems from one of NTID's basic objectives; to develop new, imaginative, and innovative methods of teaching deaf students.

"CAI has three basic advantages," said Williams. "The first is its **capability** for individualized instruction. In other and then only those are remediated; he won't be embarrassed by the computer. He can progress at his own pace. words, a student's deficiencies are individually diagnosed. Secondly, the computer has a **capability** for simulation. It can simulate experiments that would otherwise be very costly or dangerous. Third, it has a **problem solving capacity** which permits relatively easy solution of complicated problems in logic and mathematics."

Closely allied with CAI is Computer Managed Instruction (CMI). In CMI, the student's deficiencies may be diagnosed and the student directed to an appropriate source of remediation. Through use of this system, the student may be directed to a text, to an instructor, to a film strip, or to a variety of other media in addition to CAI itself; the basic principle being to employ the most appropriate means of instruction.

"One of our guiding principles in CAI is **compression of learning time**," Williams added. "With a regular course there's a certain block of material to be taught to all the students in that class. That may be fine for some of the students but in many cases, a student will be re-learning something he already knows. In CAI, the student first gets a diagnostic test, then he is taught only material which the test has shown he doesn't know. In other words all the time the student is in that CAI booth, he is actively learning something he doesn't already know."

More than 30 NTID students are presently utilizing CAI on a day-to-day basis. "We're running on an eight-hour day now, as far as terminal usage goes," said Paul Vonhof, technical support leader for CAI. "We hope that, by the fall of 1973, we'll have the terminals going 16 hours a day. The usage, right now, is a little light because everything is still in the development stage."

Examples of current CAI projects are: a Mathematics Diagnostic System (MDS) which diagnoses and remediates

mathematics deficiencies at the 8-12 grade level, through a combination of CAI and CMI, to prepare the student to enter Calculus; a programming language (APL) which enables the student and the computer to **speak the same language**, and courses in Advanced Physics, Electronic Data Processing, Statistics, Vestibule Chemistry, Thermodynamics, Bio-Chemistry, and Electronic Circuit Analysis.

Speed is another advantage the computer has, according to Williams. "Imagine two ten-digit numbers that you want to add together," he said. "You program the computer to perform this function an infinite number of times; then you press a start button on the computer console and, moving your finger as quickly as you can, you push the stop button. Just in those few fractions of a second between start and stop, the computer will add those two ten-digit numbers approximately 63,000 times!"

CAI's computer configuration consists of an IBM 1130-based 1500 system. There are 12 student terminals now. "There will probably be 32 of them by fall, 1973," commented Vonhof.

CAI will get a full-time director in the summer of 1970, Dennis Barnes, who is currently completing his Ph.D requirements at the University of Southern California. Williams has served as CAI director for the past year, in addition to his duties as administrative assistant to the director of NTID.

## Silent Homage (For An Interpreter)

The moving lips speak voicelessly — but hark:

The winging words fly from your fluttering hands;

And each, who dwells in silence, understands

How Dawn, the rosy-fingered, burns the dark

From shadow-worlds wherein the teeming brain

Lay, like a captive, in a dungeon-cell;

Your magic bursts the iron citadel,

And breaks the lock, and brings the light again!

Dear friend, how empty, vain and commonplace

Must seem this gratitude we offer you;

Yet now we render homage, as your due,

Remembering your patience, love and grace —

With twining fingers as you blithely go,

Daily, to fell our Walls of Jericho.

by Loy E. Golladay  
Vestibule English Faculty

## Drama Club: a busy first season onstage

"Footlight Fever", the NTID Drama Club's first full-scale production, drew wide acclaim from a capacity crowd at R.I.T.'s Booth Auditorium-Theatre on the evening of April 1, 1970.

Following a brief introduction by Production Chief Robert Panara, the cast performed a variety of skits, songs, ballads, Haiku poems, and a one-act play, "The Marriage Proposal", by Anton Chekhov.

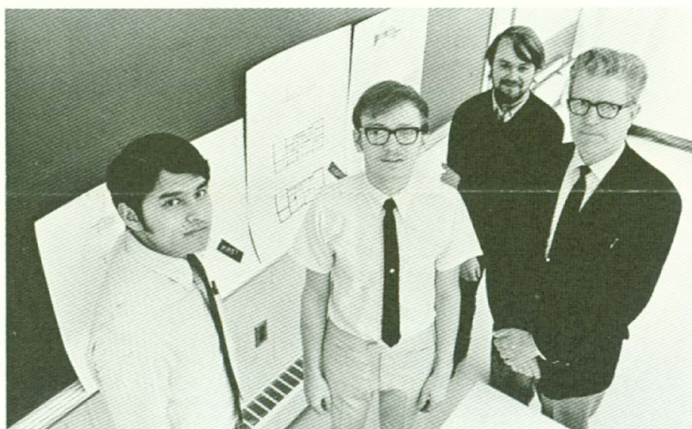
The presentation's success was evidenced by an invitation to the Drama Club to give a repeat performance for the New York State English Council Humanities Workshop. For that occasion, the group travelled to Syracuse on April 23.

The group performed again at the R.I.T. campus on May 20, with a production entitled: "The Silent Stage". The presentation featured Japanese and classical poems in sign-mime, skits, blackouts, and a modern version of "The French Apache" dance.



Chuck Baird, Linda Kessler in scene from "The Marriage Proposal".

## Design Winners



Three Architectural Drafting students emerged as winners in a Home Design Competition, held early this year under the leadership of instructor LeRoy Duning (right). First Prize, Second Prize, and Honorable Mention were awarded, respectively, left to right, to Michael Rojas, Tom Virnig, and Poul Kangas.

## Seminars with Professional Artists



Recent seminars for NTID fine and applied arts students brought two professional artists to the campus. Above: Jack Slutzky, principle owner of Stewart, Adams, and Bartell, Inc., a New York advertising agency, talks with students as Jim Stangarone interprets. Below: nationally known sculptor Anthony John Sorce, (center), talks with Mrs. Florene Hughes, and Loy Golladay.

## NTID View

The first issue of the student newspaper **The NTID View** hit the stands in April with four pages of news items, features, cartoons, and editorials.

Under the leadership of Editor Linda Kessler, of Westfield, N.J., the staff consists of: Business Manager Simeon Ferraro, of Kenmore, N.Y.; Co-News Editors Steve Schultz, of Rochester, and Bob Fuller, of Evanston, Ill.; Sports Editor Ed Shirey, of Freeport, Pa.; Columnist Richard McElwain, of Rochester; Photography Editor Phil Grein, of Chicago; Co-Art Editors Joanne Fortune, of West Springfield, Mass., and John Roberts, of Rochester, Vt.; Layout Editor Jody Blank, of Flushing, N.Y.; Asst. Layout Editor Jerry Nelson, of Cushine, Minn.; Circulation Manager Sue Wolf, of Rydel, Pa.; and Copy Head Valerie Demenia, of Sebastopol, Calif. Mrs. Judy Tingley of the Vestibule English faculty serves as advisor.



# National Advisory Group C.E.A.S.D.



Herbert Duffy, left, director of the Contracts Division, Department of Health, Education, and Welfare, and Dr. James Speegle, assistant to dean, NTID, peruse Vestibule art exhibit during recent meeting of National Advisory Group.



Participants in Conference of Executives of American Schools for the Deaf, in Florida, examine "Vistophone" picture-telephone system. Seated is Dr. Robert H. Spiro, president, Jacksonville University. Standing, left to right, are Dr. Frisino, Dr. William J. McClure, president, Florida School for the Deaf and Blind; and Doug Bender, of Stromberg-Carlson Corp.

NTID FOCUS is published ten times annually at the National Technical Institute for the Deaf at Rochester Institute of Technology. Editor: John W. Cox. Telephone: 716, 464-2332.

**ntid**  
FOCUS

One Lomb Memorial Drive  
Rochester, New York 14623  
Address Correction Requested

**cal: Individualized Learning by Computer**

**Successful First Season for Drama Club**