

Know where you're going and how to get there

Need a broader view of your world? A concise but complete account of a wide range of topics? The Christian Science Monitor — an exciting daily newspaper — can round out your education, can give you a clear view of the world and help you see where you fit in and what you can do.

News, commentary, the arts, politics, science, consumerism, food, sports, business. At less than 10¢ a copy on your special rate. And to further help you see where you fit in, you'll receive with your subscription a copy of the popular Monitor reprint, "Careers for the 1980's."

For \$8.25 for four months (Mon.-Fri.), yes, I'll anchor down my education through The Christian Science Monitor.

Payment enclosed Bill me later

NAME (PLEASE PRINT)

STREET

CITY

STATE ZIP

I am a full-time student/faculty member at

The Christian Science Monitor,
Box 125, Astor Station
Boston, MA 02123

©U

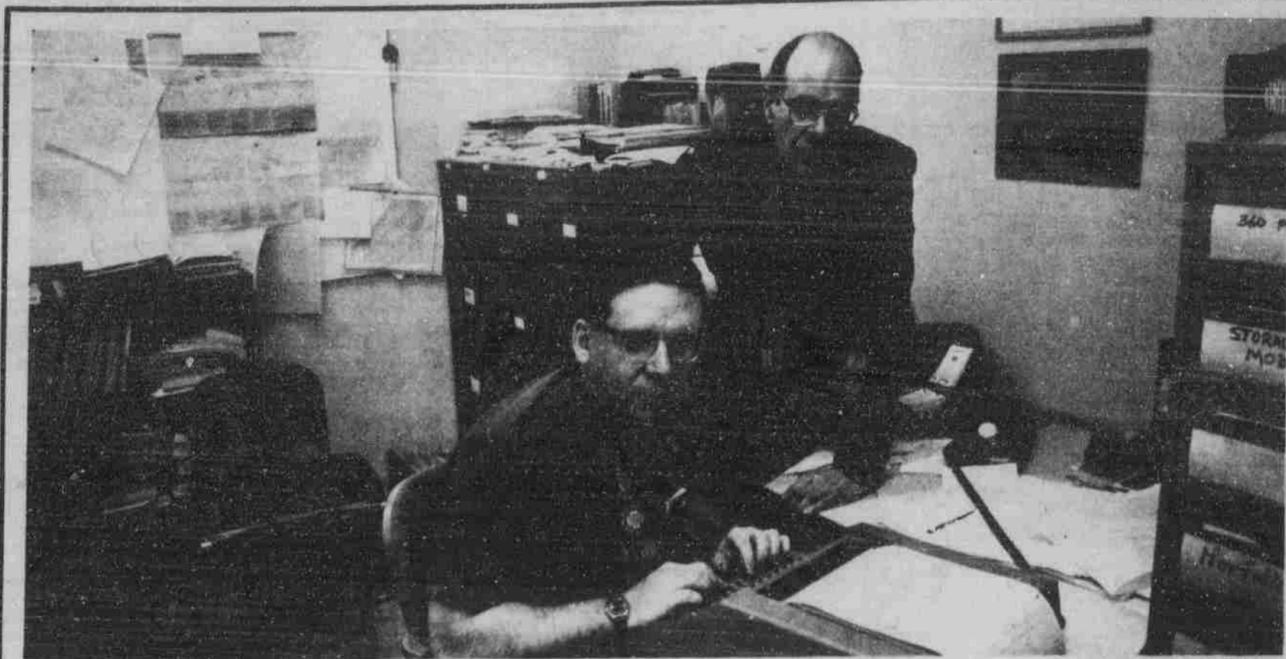


photo by Kevin Higley

Dr. Thomas Thompson (left) and James Kendrick, developers of the AGNET computer system

AGNET: Farmers' computer link.

By Don McCabe

Since January, western Nebraskans have been able to calculate livestock feed rations and growth costs with the aid of computers.

Last fall, UNL East Campus professors began using computers as aids in the classroom.

The computer system these people share is the Agriculture Computing Network (AGNET), an interactive computing system developed by the Institute of Agriculture and Natural Resources.

Interactive computing is a system where computation results are available immediately to the operator of a computer terminal. Dr. James Kendrick, agricultural economist and AGNET consultant, said that although interactive computing is not a new concept, AGNET is a further development of the system.

By the use of one or two key access words, he said, a user can gain access to a program in the computer. This enables people with no previous knowledge of computers to use them, he said.

Explanations help

When a program, such as feed rationing, begins, instructions on how to use the program are available. The computer "talks" to the user as it guides him or her through the program by asking questions and catching errors.

If the user needs explanation of data, "help" and "stop" procedures are available. Kendrick said the system never leaves the user lost or frustrated because of these explanations.

Components of the system include portable and permanent terminals that are linked by telephone to the IBM 370 central computer at the state capitol and T.V. monitors that show the results. The telephone hookup allows the system to be used wherever a portable terminal is carried, Kendrick said.

Data for the programs have been compiled from many East Campus

professors. These researchers have fed this information into the computers in the form of programs. A list of these programs is also available to the user at the terminal.

"Before, people thought years of training were required to operate computers," Kendrick said. By using the access words, he said, children as young as four-year-old can obtain and use a simple program.

Panhandle has one

Dr. Thomas Thompson, AGNET consultant, said AGNET was established to "facilitate teaching, research and extension work of the Institute of Agriculture and Natural Resources." Thompson, an agriculture engineer, has been working with Kendrick for almost a year in the development of AGNET.

AGNET pilot project began at the NU Panhandle Station in Scottsbluff in January. Two portable terminals, one each at Kimball and Box Butte, and a permanent terminal at the Scottsbluff station are included in the system.

Dr. Robert Retzlaff of the station said it is used by agronomists, livestock specialists and ranchers to calculate feed-mix rations, cost sensitivity analyses for beef growing and to check soil samples. A food nutritionist at the station also uses a diet-check analysis program.

In the feed-mix program, growers can learn the percentage of ingredients in a particular feed ration, Retzlaff said.

The cost sensitivity analysis, he said, allows the grower to assess the feed ingredients cost and, thus, the best possible feed combinations.

"Bus-Pac" rates

Cattle raisers also can learn how fast and efficient a calf grows from a beef grower cost program. Factors used by the computer in this program include feed-heat, feeding period and feed costs.

A "Bus-Pac" (business package) program in the computer allows a farmer to learn immediately interest and

principle rates when buying land or machinery, Retzlaff said.

He said as farmers and ranchers in the area have become more aware of AGNET, they have become more interested.

"We have been getting an increased number of calls from county agents asking about the system," he said. Demonstrations of AGNET also have been given to area cattlemen, he added.

The Institute of Agriculture and Natural Resources is tentatively planning to establish an AGNET system at the Concord Experiment Station by July.

Classroom use

In addition to its field application, AGNET also is being used in the classroom by students and professors at the East Campus. The same programs used at Scottsbluff are used as teaching aids in agriculture economics, animal science and agronomy classes.

AGNET is used in agriculture engineering to calculate more efficient and effective grain drying procedures Thompson said. The agriculture education department also has used the system to evaluate its instructors.

Kendrick said that this system would have great possibilities in schools, especially elementary. Immediate feedback, automatic scoring, personalization and flexibility would be some of the advantages for the classroom, he said.

"In the past, teachers and schools have been afraid of computers," he noted. "With this system we would allow the teachers to aid in programming the computer for their students."

Helping themselves

Programs for students are geared to the ability of the user, he said. The computer will seek out the academic level of the user, he said, and will never leave the student lost.

"The computer also gives positive reinforcement," he added.

University said an invaluable ag aid

Much of the state's progress in agriculture can be traced to the work of the University of Nebraska, according to Duane Acker, vice-chancellor of the Institute of Agriculture and Natural Resources.

Acker will resign July 1 to become Kansas State University president.

According to one survey, 80 to 90 per cent of agricultural advancement is associated with the work of land grant colleges. Sixty to 70 per cent of this can be traced to researcher's discoveries. The remaining percentage of improvement, Acker said, results from technological advancements.

Graduates from Nebraska agricultural schools have a high percentage of placement, Acker said. At Curtis, a two-year vocational agricultural school, 98 per cent of last year's 109 graduates found jobs. Of these, 92 per cent stayed in Nebraska.

The university works with farmers through the extension program, which is a cooperative effort between specialists on the federal, state and county levels. The extension program on the county level concentrates on three aspects:

—Education. Night classes are offered on subjects such as water management and conservation. These classes keep farmers aware of latest agricultural trends.

—Home education programs. The extension division holds classes on everything from

"how-to" classes such as tailoring classes for housewives to college-equivalent courses.

—The 4-H clubs. Thirty per cent of extension work is devoted to working with 45,000 4-H youths in the state, Acker said.

Five district extension offices are scattered throughout the state, Acker said. These are at Scottsbluff, North Platte, Clay Center, Concord and Lincoln. Lincoln is also the center of the state extension office.

The state extension office serves an editorial function. The office sends out bulletins about the latest developments in agriculture research. The office also funnels some of the UNL researcher's experimental results to scientific journals for publication.

Since NU took over the vocational agricultural center at Mead nine years ago, it has developed what Acker described as a "very, very strong education program."

The school was accredited by the North Central Accreditation Association three weeks ago. The two-year program offers majors in agriculture business, land and water management, agriculture mechanics, production agriculture and veterinary technology.

The state's other agriculture station at Mead is a research center, Acker said. Researchers there have developed new strains of wheat and soybeans better suited for Nebraska climate and soil, he said.

Citibank

Member F.D.I.C.

Nahnou
nahtamo
bi-malika.



Get Right
Down to
the Nitty Gritty
Citibank
Main Bank—14th & M
Drive-up—20th & O