Computer networking links Native Groups

By GISELE WINTON

The long distance separating Native communities across Canada has always made effective communication difficult. But this problem may be a thing of the past as Native communities continue to join the Native Communications Network (NCCN), a unique network developed and implemented by York's "group of seven."

If Louis Riel could see us today he'd say, "if only I had had an IBM PC, I could have succeeded in uniting Canada's Native peoples. For even as we read, Native people across Canada are becoming a part of the NCCN, a unique network developed and implemented by York's "group of seven."

The group of seven individuals including Mary Bernard—Research Coordinator of Native Canadian Relations, Theme Area, of Environmental Studies—have been working on the network since December 1986, and they implemented the programme as of November 30, 1987. Bernard feels that the network will serve the Native people as a "common tool for both economic and social issues that can be used toward the facilitation of self-government



GROUP OF SEVEN, ER... SIX: The staff of the Native Computer Communications Network is using computers to overcome the distance separating native communities.

and communication." The network will also seed the creation of jobs.

The network is specifically designed for the Native people. It links native computer sites such as First Nations and other Native organizations and the homes of Native individuals to one another by

telephone modem lines. The network operates with IBM XT and AT personal computers and their compatibles. Each computer calls the one closest to it to transmit new information.

"The network is designed to emphasize cooperative use," states

Bernard. The NCCN's features include News Conferencing, which will encourage the discussion of issues such as self-government, land claims, economic development, educational programmes, and conferences. The group is presently creating the Database feature that consists of the titles of over 5,000 publications housed in the Native/Canadian Theme Area resource centre library, located on the second floor of the Lumbars Building. It also includes relevant material from many external sources. The Database will be updated every three months. When requested by an interested network member, the full publication may be forwarded through the system's file transfer function. This is much more cost efficient than photocopying and mailing publications.

Paul Shields, fourth year computer science student and manager of technical support is responsible for customizing the software for the network. He selected from already existing software and remodelled it to be accessible and cost efficient. "What we have is people getting together and using computers who normally would not use computers," says Shields. While most large com-

puter networks use a centralized mainframe set-up, Paul opted for a Distributed Network. With a Distributed Network, "There is no centre, the users manage the system themselves," explains Shields. A self-controlled and non-centralized network compliments rather than conflicts with a communalistic lifestyle.

The network was developed from the large mainframe Unix, that has the reputation of being hard to use. Shields adapted its Usenet network, particularily the News conferencing option to work on IBM personal computers. The NCCN runs on Xenix software. "I see Xenix as the software of the future, it provides flexibility and room for growth,' explains Shields. The cost of the software is about \$700. He is also working with MS DOS software because most people use MS DOS now, and it costs under \$100. The advantage to Xenix software over MS DOS software, is that it allows more than one user on the system at a time.

In addition to this system software, "We use Public Domain software. This is cost efficient because it is widespread, we don't have to pay for it," states Shields. The Public Domain software allows the user to read news bulletins, use the editors, and send messages. Complex functions are hidden in programmes so that the user faces a simple on-screen menu. This menu driven system takes only a matter of hours to learn. "This combination of features is truly an innovation of Paul's, it is the only one of its kind," states Bernard.

Not only has the group designed and implemented the network, they are currently engaging in promoting and educating people to use it. "Right now about 40% of reserves have computers, but the overall literacy rate is low," says Bernard. According to Leslie McGregor, who is responsible for the "hands-on" training, and testing of the mannuals, "Most of the people want to become computer literate."

"We go to Native communities and give a presentation. If they are interested, we embark on a training programme," explains Shields. The people are required to obtain their own equipment, although the group has supplied some of the equipment too. Other members of the group include Bob Holota, a native person with 20 years of community experience under his belt, who is in the field promoting the Database. Ken Pitawanakwat and Rory O'Brian are currently in Vancouver promoting and advertising the network. Madelaine Salzawuela holds them all together, providing secretarial support.

"The thrust of the NCCN is to seed the development and creation of jobs. We are training people to train other people to use the network. The network is developed to be selfcontrolled," explains Shields. This will create jobs in every Native community and reserve that uses the NCCN.

The funding for the project is from Innovation Canada, a branch of the Canada Employment and Immigration Commission. Funds were applied for under Peter Homenuck, coordinator of Native Education and Training. They receive \$280,000 for the period December 1, 1986 to December 1, 1987. Another \$120,000 was received for the period December 1, 1987 to March 1, 1988. York University matched this contribution by granting the use of its facilities and resources. The NCCN organizers hope to acquire additional funding to continue the education stage of the network, though Bernard says that there is a good chance of its survival even if additional funds are not obtained.

If the network is successful, the group of seven hope to apply the knowledge to other areas in the world, such as developing countries.



