



COMMUNICATIONS EXPRESS



Ontario Region

TELEWORK OFFICE OPENS IN BURLINGTON

INSIDE

The brains behind the smart card project **2**

Mavor Moore talks culture **3**

District office directors swap homes and jobs **4**

Digital broadcasting: The waves of the future **5**

Researchers rewarded at CWARC **6**

by Maureen Evans

Quite frankly, the commuting was killing me. I was spending just over 11 hours a day between work and travel to work, over three hours in commuting time alone, and it was taking an enormous toll on my life." These sentiments are expressed by Donna Bentley, a telecommunications analyst with GTA at the Ontario Region office in Toronto. Fortunately for Bentley, she no longer faces this commuting as she now reports to work at a remote worksite recently established in Burlington.

The Ontario Region, in conjunction with the Canadian Workplace Automation Research Centre, has set up this off-site work centre in response to the problems associated with commuting in the metro Toronto area. Known as telework, this concept involves the substitution of telecommunications for commuting.

Large metropolitan cities such as Toronto offer exciting opportunities, but traffic congestion, pollution, a high cost of living, and expensive housing are some of the drawbacks of city life. Many people escaped the pressures

of the city by moving to the suburbs. But the price is high. For those who must commute into the city to work, it is a twice-a-day nightmare.

On November 16, twenty employees went to work as usual on Monday morning. The only difference being, they set up shop at their new office in

Burlington. Peter Kohl, a radio inspector with the Toronto District Office, describes how the new office affected his life: "I live in Burlington and this move shortened my commuting time by three hours and lessened my transportation expenses. It has also improved my home life."

The implementation

of advanced office technology allows work to be performed in Burlington as it was in the Toronto office. The computers in Burlington are linked to the main office, allowing employees to communicate the same way they did before the move. By using technology such as electronic file management, employees can access the documents they need without

physically moving any paper.



Penny Taylor, from the Toronto District Office, is shown cutting the ribbon for the opening of DOC's new off-site work centre in Burlington.

➔ see page 3: Telework

SECURITY SERVICES PROVIDING THE BRAINS BEHIND DEPARTMENT'S SMART CARD PROJECT

by John Morton

Amid the many displays on new practices and technologies employed in federal agencies and departments, the smart card exhibit by Communications Canada's Security Branch generated much attention at this year's Expo Innovation.

Julie Côté, Chief of Security and Intelligence Programs, was on hand at the exposition answering questions and giving demonstrations on the smart card's various applications.

Explained Côté, "The smart card is an identity card with an embedded computer chip that can store information and perform computer functions. The card was invented in France where it was used for pay phones and parking meters." Côté said the Security Branch, headed by Colin Taylor and assisted by sector co-ordinator Greg Young, started a pilot project using smart cards three years ago to control after hours access to departmental headquarters.

A group of about 80 users were issued cards which contained information about the cardholder. The users could then log in or out of the building during silent hours by inserting their cards in a smart card reader.

The pilot was well received by users as well as guard staff since it speeded up building entrances and exits and provided a record of building accesses.

Currently, Security Services is working with the Canadian Conservation Institute which will be using the cards to enable cardholders to access a "status board". The board will allow a receptionist to determine who is in or out of the facility at any given time.

A similar application has been installed at the CRC guardhouse for silent hours access registration. An additional feature of the CRC application is that it allows guards to assign building keys to individuals and reminds the guards to retrieve the keys when the individual logs out of the facility. This application eliminated the need for card holders to manually log in and out of the facility as well as the need for them to sign a key register when they are requesting keys from the guards on duty.

Another application at the CRC was used with tool equipment loans in Plant Engineering and the Model Shop. An individual inserts his smart card into the reader and types the description of the item he or she wishes to borrow. Once the loan is accepted as being valid, a transaction number is generated and stored on the chip of the card. The card will then have a record of the transaction number, the item description, time, date and borrower's name.

Côté said this application could be employed for the distribution of office supplies in the Department, whereby the user can access supplies by using a smart card that would record the employee's collator number, the items taken and debit his or her account accordingly.

Areas on the card that contain personal information are protected with a personal identification number, similar to those used at automatic banking machines. This information would include the employee's personal record identifier (which eventually will replace the Social Insurance Number as an employee identifier), payroll, position number, date of birth, classification level, security clearance and collator number. This information would help speed up paperwork when employees transfer positions within the Department.



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MAVOR MOORE TALKS CULTURE AT NATIONAL DISTRICT DIRECTORS' MEETING

by Sylvie Peltier

Mavor Moore, playwright, producer and former chair of the Canada Council, spoke at the recent national meeting of district directors.

With the referendum results still fresh in everyone's mind, Moore reflected on a speech he had written 12 years ago in the aftermath of the Quebec referendum. Expressing dismay at the extent to which his old speech mirrored today's situation, Moore urged the district directors to give culture high priority. "Our most important problems are cultural," he argued, "Cultural tensions are cropping up everywhere and governments are tested by how well they can accommodate cultural diversity."

The difficulty for cultural administrators lies in their struggle with two contradictory goals: the notion that the past can be preserved, and the desire to build something new for the future. Also, the effort to establish a common theme may, in the end, only serve to create diversity.

The role of government in cultural funding, according to Moore, is to encourage creativity, the sharing of our dreams, and our nightmares, as reflected in multi-faceted cultural mirrors. The temptation to sketch, sculpt and design this creativity must be resisted because it is self-defeating. An official stamp of approval turns artists into propagandists, and diminishes their effectiveness.

"If we are to encourage people to be creative," declared Moore, "we must understand that economics, politics and technology are the servants, and not the masters."

National identity is born of a diverse and vigorous cultural life. Citing Ireland, Moore asserted that there is no connection between getting into power and ensuring cultural vitality. This is where the challenge of cultural funding resides – giving a voice to the established and the inexperienced, the marginal and the mainstream, so that when tensions and tempers run high, instead of pulling a gun, we will "draw" one.



Mavor Moore

TELEWORK

From page 1

In addition, there is no loss of output and the same level of direct service is maintained with the client. "The essence of my work did not change at all. Through modern technology, my job remained identical in every way. Clients and colleagues continue to communicate with me in the same manner they did before the move," says Bentley.

Telework was considered as a solution after it was realized that the willingness of qualified candidates to accept positions in Toronto had declined rapidly. Within the region, there was a high turnover rate and as a result, staffing and training costs were on the rise. In addition, extensive commuting was affecting employee morale and productivity.

Management and staff in the region are confident the Burlington office is a solid investment in human resources. Dave Lyon, Executive Director, and an enthusiastic supporter of the telework project says, "By establishing a workplace closer to where people live, employees save time and money. The response from employees has been terrific; staff are really excited about this project."

Plans for a second and third off-site work centre are proceeding. Employee surveys have indicated there is a strong interest in locating another office north of Toronto.

The Ontario Region is enthusiastic about the Burlington project and proud that they have been able to address the needs of their staff while continuing to maintain their high level of service to the public. Don Walker, Manager of the Distributed Office Project, says, "It is satisfying to see employees so thrilled with a solution to commuting; it has given them some of their lives back."

DIFFERENT CULTURES, DIFFERENT MEANINGS

A short tour of the various meanings of the word "culture" with guide Mavor Moore.



Culture as:

- Preparation for growth (root sense)
- Minor civilization (anthropology)
- Lifestyle (sociology)
- Social engineering (business administration)
- The leftover portfolio for language, the arts, science, education, recreation and tourism (government).

DISTRICT OFFICE DIRECTORS SWAP HOMES AND JOBS

by Sylvie Peltier

One day Ray Morin, Saskatoon district director, telephoned Jack Anderson, his Victoria counterpart, and proposed that they exchange jobs and homes for a month. The idea was simple. The two directors would follow a "best practices approach" and review principles, methods, and innovations in each others offices and regions. The exchange would be total. Morin's staff must report to Anderson and vice-versa. Similarly, the directors would refrain from calling their home office making sure the sky had not fallen in their absence.

To the outsider Saskatoon may not seem like a glamorous place, but for Jack Anderson and his wife Mary Ann, both

Saskatoon natives, the homecoming was a treat. It was also an excellent opportunity for the Andersons to visit with their grandchildren who still live in the city. As for Ray and Margaret Morin, they had to leave Amanda and George behind, but the cats didn't mind. This was a chance to explore beautiful British Columbia.

In July of 1992, Morin and Anderson, true to their mission, began to poke and probe around their adoptive district offices. Anderson was impressed by the strong public image emanating from the Saskatoon district office. Its decor is appealing and the organizational structure is functional. He noted the means by which Saskatoon culls non-essential files and moves old volumes to archives. Anderson also discovered a new system for frequency selection, excellent for finding unused spectrum.

Morin was particularly interested in Victoria's eight-month rotation schedule as compared to Saskatoon's two-year rotation period. This may be the way to cut down on extensive training and updating when positions are being rotated. He discovered the use of talk shows to convey information to boaters, and became involved with Victoria's administrative reclassification, sharing his own recent experience with the process. He also found the staff very motivated and responsive to new ideas.

At the end of their exchange, the two directors got together behind a closed office door. For

a day they discussed each other's operations, asking specific questions and getting informed feedback in an open and candid way. Morin is now investigating the possibility of placing an anglophone or bilingual employee into a francophone environment through a similar exchange. Morin and Anderson are also encouraging ongoing contact between the staff of their respective offices.

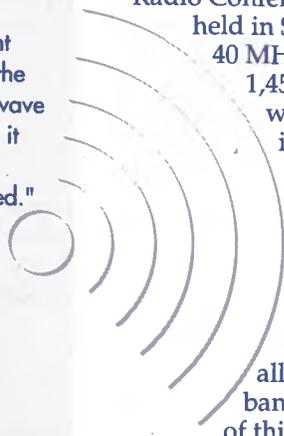
Some time has passed since Anderson and Morin returned to their own districts. The experience was a success. "Personally, it revitalized me," says Anderson, "I got enough out of it for another year or two. It was a chance to see something else, to get new ideas. I got a different perspective."

Morin was similarly excited by the exchange. He had been thinking about new managerial approaches and the exchange provided some testing grounds. "It has allowed me to develop a new appreciation for my personnel and my region," says Morin. The Saskatoon district director likes to quote the T.S. Eliot saying: "We must not cease from exploration, and the end of all our exploring will be to arrive where we began, and to know the place for the first time."

The 1988 national employee survey highlighted the decreased advancement opportunities arising from cutbacks and rationalization. It was established that exchanges within the Department would foster growth, exposure, and cross-pollination between sectors and regions. Application forms were sent out to interested employees but few exchanges took place due to problems ranging from lack of matches to disinterest. The opportunities are there, but individuals must pursue them. The Victoria and Saskatoon district offices have shown it can be done with positive results.

EUREKA-147

At present, CRC researchers are studying a system called EUREKA-147. To date, this is the first piece of digital radio equipment submitted to the International Radio Consultative Committee for the development of an international standard. Explains Thibault, "The CRC is assessing this technology for the purposes of adapting it to digital radio needs in Canada. It has two main components: the first has the bit rate of the audio digital signal prior to transmission, while the second component transmits the signal in wave form once it has been compressed."



DIGITAL BROADCASTING BRINGS WAVES OF THE FUTURE

by Martin Archambault

Faster than a speeding bullet, able to leap tall buildings in a single bound, digital radio waves will soon twist through mountain ranges and highrises, brave tunnels and bad weather to deliver beautiful sounds to your car or home stereo system.

Digital audio broadcasting (or DAB) signals will eventually replace the analogue signals that broadcasters now use. This new technology will enable radio stations to transmit clear, static-free sound. No matter where you find yourself listening to radio, the quality of the signal you receive will be equal to that of compact disks.

"It is expected that digital broadcasting will completely replace AM and FM radio within the next 15 years or so," says Louis Thibault, Sound Broadcast Systems Manager at the CRC. "Technically, radio stations will be on an equal footing. They will differ only in the content of their broadcasts."

At the World Administrative Radio Conference (WARC) held in Spain in 1992, a 40 MHz band between 1,452 and 1,492 GHz was allocated internationally to digital broadcasting. The Canadian WARC delegation played a central role in the allocation of this band. The advantage of this band is that it



PHOTO: JANICE LANG

Don MacMillan, of the CRC's Sound Broadcast Systems Research team, uses software developed by the Centre to study the coverage range of digital audio broadcast stations.

allows for the transmission of a digital signal not only from an antenna on earth, but also from a satellite. The transmission of waves by satellite will enable broadcasters to reach remote areas and to broadcast on the same frequency throughout Canada. According to Thibault, "You could drive across Canada without having to search for the best frequency signal if you wanted to listen to CBC Radio."

Transition Period

The Department of Communications has allocated \$1 million for research and development. A working group made up of representatives from the Department and the broadcasting industry has been created to co-ordinate the implementation of digital radio and to help broadcasters during a transition period in the next 10 to 15 years.

Experimental stations using digital audio broadcasting and

the EUREKA-147 system will go on the air beginning in 1993 in Montreal, Toronto and Vancouver. These stations will enable the Department and the CRC to do in-depth studies on wave propagation and the characteristics of the mobile radio channel around 1.5 GHz. Radio receivers will be distributed to target persons in order to evaluate the new service. It is expected that digital radio will begin regular broadcasting in 1995.

Of course, consumers will have to purchase new equipment to tune in digital radio broadcasts. However, the price of the new receivers will not be much higher than the price of the current ones. And don't throw out those old radios yet! The AM/FM bands will be operating in tandem with the digital radio networks for at least 15 years. Only after that will digital radio become king of the broadcast hill.

Atlantic Region COMMUNICATION SKILLS HELP WOMEN AT WORK

by Monique Comeau

Traditionally, men are raised from birth to take charge of their lives, to hold positions of leadership and power, to become providers for their families," asserts Rachel Léger, Chair of the Atlantic Region Advisory Committee for Women at DOC.

This is a reality that men have taken for granted since the beginning of time. But young girls, to their great disadvantage, are simply not given the same opportunities to develop these skills.

But this reality is not one women should simply accept, emphasized Léger, during a presentation at the Department's regional office in Moncton. Women who are currently in the workforce may not have developed these leadership skills while growing up, but, by the end of the presentation, those in

attendance realized that it is not too late to find within themselves these same abilities that have the potential to be developed and to flourish.

As a rule, people give more credence to those who can deliver a message clearly and effectively. The presentation was thus an exercise in improving communication skills for women. It consisted of eight separate blocks dealing with a different ingredient of effective communication. One of these blocks dealt with developing self-awareness, others emphasized the development of a positive self-image and the ability to reach a resolution in times of conflict.

Léger addressed participants in Moncton, plus others from the region's district offices who were in attendance courtesy of teleconferencing, during a two-hour session. All participants were invited to

offer feedback throughout the presentation and left the session with an evaluation form to be returned to Léger at a later time.

In a pilot project introduced this summer, Léger attended a similar seminar on the condition that she would share what she learned with her colleagues in the region. In sharing this information, she gave these women some of the fundamental tools in the art of communication.

If this presentation proves to be a success, Léger and others from the region will be sent to attend other seminars in the future so that they may develop their own skills and spread the word on effective communication and, ultimately, on the empowerment of women in the workplace.

(From *Atlantic InterComm*)

CWARC RESEARCHERS RECEIVE ROYALTY CHEQUES



CWARC researchers (l to r), Pierre Desjardins, Sylvie Bessette and Jean-Luc Landry will receive royalties for their work on the TODAC software.

Three CWARC researchers were rewarded for their work on the TODAC project. Pierre Desjardins, Sylvie Bessette and Jean-Luc Landry will receive a percentage of the royalties that CWARC received

from licence sales of the Testing Open Document Architecture Conformance software (TODAC).

The TODAC project was carried out in co-operation with the National Computing Centre of British Telecom, Idacom of Edmonton, a division of Hewlett-Packard, and INTAP of Japan.

The concepts and software developed by this project, which verifies conformance in implementations of the international Open Document Architecture standard, quickly

acquired a world-wide reputation. The TODAC system was chosen for preparation of interoperability demonstrations for the CEBIT industrial exhibition in Germany in 1989 and 1990. Several international standards in this area came out of the CWARC team's work.

The system was presented officially on November 6, 1992, at an International Standards Organization (ISO) conference in Paris.