Reviews

Richard F. Lewis

Serafini, Shirley and Andrieu, Michel *The information revolution and its implications for Canada*, Hull, Quebec: Canadian Government Publishing Centre, 1981, 113 pages, $4.95.

As professionals in the field of communication, we will have to learn more about the field of information, storage and retrieval. The book, written by people at the Communications Economics branch of the Department of Communications in Ottawa, places considerable emphasis on the economic impact of the information revolution. It considers the economic ramifications of the information revolution on a wide range of areas in Canadian society; but implications unrelated to economics are given only minimal coverage.

This book does not give in-depth coverage on why the information revolution is occurring. Although the subject is mentioned, the reader would be wise to consult *Gutenburg 2* by Godfrey and Parkhill (Porcepic Press, 1979) for detailed information. It does, however, contain an excellent chapter on the implications of the information revolution. It also suggests an information plan for Canada. In this review, I would like to deal with the impact of the information revolution on Canadian sovereignty, on the individual, and on the Canadian economy. I would also like to briefly describe the proposed plan for dealing with the effects of the information revolution on Canada.

One principle is repeated frequently in the book: the information revolution is unavoidable, but by planning and concerted action, Canada can realize economic and social benefits and can avoid undesirable effects.

Sovereignty

Canada has been trying to assert its sovereignty in a number of ways, including the development of Canadian learning materials and television content regulations. The authors of this work suggest that the advances in technology wil make Canadian sovereignty more difficult to maintain. Improved telecommunications techniques will increase public access to U.S. television programs, thus decreasing viewing of Canadian materials. In data processing, improved digital transmission techniques mean that Canada could find itself using U.S. central computers for data processing. This means that databanks could be based in the United States under American legal regulations rather than in Canada. The expansion of videotex may mean that U.S. sofware producers could flood the Canaian market making Canadian content less desirable.

How realistic are the authors' perspectives? Canadians now watch more U.S. television than Canadian. In addition there is evidence to suggest that Canadians prefer to watch U.S. television. This point naturally raises the question of whether the global village created by the information revolution will leave room for any single country's culture.

In terms of data processing, we can be reasonably sure that the forecast will be accurate, because of the increasing trend to centralization. Centralized databanks demand much financial backing thus indicating the United States as a site. In the field of videotex, the adoption of the Telidon standard by the U.S. indicates that Canadians could be overwhelmed by American-made Telidon pages. As a result, we could have the latest Canadian technology educating with an American brain.

Effects on the Individual

The individual Canadian is likely to be affected by the changes in a number of ways: threats to privacy and artificially imposed isolation. Increased interconnection of databanks and sharing of information on individuals may mean that a person's records will be accessible to a wide range of users with many interests.

Electronic surveillance of workers using electronic devices such as cash registers could also become a problem. Systems used to control sales and inventory could easily be modified to monitor individuals. Safeguards regarding storage and access to information will have to be developed to avoid invasion of privacy.

People in our society could become electronic hermits, connected to the outside world only through their Telidon terminals. They could learn through distance education, shop through catalogues, write using text processors, and bank through electronic funds transfer systems without ever leaving home. Although this scenario may be appealing for Canadians in February, the implications for social interaction are grave.

The book places too little emphasis on privacy and individual rights. The title leads one to believe that the implications of the information revolution will receive attention. However, it stresses the economic and merely scratches the surface of the personal and social implications.

Effects on the Economy

Most of the book focusses on the effect of the information revolution on the economy. Its effects on workers, design, engineering and production is presented in some detail. Specifically, the information worker will see changes in job tasks and output. Increased productivity will mean that fewer but more highly trained professionals are needed to perform the same tasks. Reduced employment could be counterbalanced by increased demand for information. The authors suggest that increased leisure time may increase the desire for educational materials thus stabilizing the demand for information workers.

One chapter deals with the experience of Japan, Sweden, the United Kingdom, the United States and France in dealing with the information revolution. Each country's production techniques are analyzed and estimates are made on the economic impact of the information revolution. Production of information machines, data processing equipment, information electronics and software are discussed. The authors consider Canada with its advanced technology in satellite communication, cable television and switching and transmission techniques could take a leadership role in transferring technology to other countries.

The topic of economics is the strength of this book. The reader seeking information on the implications of the information revolution on Canadian business will certainly find a great deal of useful information here.

Action Needed

The book calls for action from government and private sources to develop an information plan for Canada. Critical to the whole process is the application and diffusion of information technology throughout every sector of the economy. People will have to use more of the potential of information technology in every phase of their lives from learning to employment and use of leisure time. Diffusion to ever sector of the economy will mean increased employment in design, engineering and production areas of information technology and will also allow for the development of expertise useful in exporting technology. The authors suggest that Canada should encourage applications for information technoloy in areas where Canada has a competitive advantage. New information-producing companies should be nurtured and protected. Workers will need to be retrained while civil liberties are protected.

In the proposed plan of action the authors assume that Canada should adopt the new information technologies because of the potential benefits. However, the economic benefits may mean that a number of undesirable effects on the individual and on the society will result.

Professionals in a variety of fields, especially those of us in communications may need to challenge the assumptions made by the authors. We will need to ensure that civil liberties are protected. We will need to ensure that decisions in the field of communications will benefit individual Canadians and not just established shareholders in business and industry.

The book is well worth its purchase price. We need to know more about the issues raised by the information revolution. Only through knowledge can we deal intelligently and effectively with the inevitable changes in society.

Vol. 11 No. 3
ISSN 0710-4340

Association For Media and Technology in Education in Canada

L'Association des Media et de la Technologie en Education au Canada

Canadian Journal of Educational Communication

CJEC CJEC CJEC CJEC