The technoligical revolution and you

by Paul Creelman

The past few decades have seen explosive growth in the fields of information processing and retrieval. Few seem to realize that the accelerating growth of capability in information processing equipment imply changes in modern society which may be every bit as drastic as those of the Industrial Revolution 200 years ago. Of all the various social aspects whtch could be considered, the right of individual privacy is one important moral consideration. It may also prove to be a very complex one, but the interactions between privacy, freedom of information, and the new technology are too closely concerned with our basic human values to be ignored. We have a serious responsibility to deal with possible problems so they don't rebound on the next generation.

In England, about the turn of the 18th century, there was a change in the social-economic structure which had such drastic effects that it was called the Industrial Revolution. Rooted in a newly developed set of technologies, it helped determine the entire face of modern society in the Western World.

Today we are facing another technological revolution, which shows the potential for effects at least equal in magnitude to that of the Industrial Revolution. This time we should be prepared for it.

Most people are vaguely aware that there have been major strides in computer and information-processing technology in the past two decades. For instance, in the 1950's, the military used large computer installations which cost hundreds of thousands of dollars and took up the space of several large rooms.

Today, a unit of comparable capability can be bought from Radio Shack for under $1000 dollars and carried home under your arm. What should be obvious, but apparently is not (to the media, at least), is that the potential for further improvement is much greater than that which has been realized thus far. The availability of super-low cost but high capability processing equipment will have far reaching results, both good and bad.

Can you imagine an interactive computer terminal hooked up to your television screen, which you can use to do almost anything from complex calculations to retrieving library information and news? Well pretty soon you won't have to imagine it, because there are several cable television companies here in Canada who are testing such systems for introduction on a large scale basis in urban centers. Although technicalities in the Federal Communications Commission (FCC) regulations have forestalled them so far, the introduction of these systems on a mass basis could be expected realistically within five years.

In the Western World, at the administrative level of government, at least, the importance of the technological revolution has not been ignored. All of the major industrial nations have made major commitments to the development of electronics, microprocessing, information processing, and related industries. England, Japan, and Germany have allocated funds in these areas, and France, especially, has given a strong indication of its foresightedness in an ambitious scheme which will provide microprocessing equipment to all the schools in the country at the secondary level. Last week, it was announced that Canada and France have signed an agreement to cooperate in research in the field of microprocessor technology.

In the tremendously complex and variable conditions of modern life, accurate, relevant and up-to-date information is becoming increasingly important. The rapid success of companies in the relatively new field of information management shows this, for these firms specialize in the design of information processing and retrieval systems for other firms.

When considering the social ramifications of our new 'technological revolution', the issues of individual privacy and freedom of information become intertwined.

As a university student, you have been classified under a number which provides for the most efficient use of information retrieval equipment; all the information on your academic record is available knowing only that number. From the perspective of the University's registrar, this makes good sense. From a broader perspective, however, this practice becomes fraught with dangers to the individual's right to privacy, and beyond that, threatens the principles upon which we have based our society in the Western World. Furthermore, the very real possibility exists that large integrated networks of information processors will be developing in the next stage of the technological revolution. This will tend to magnify the effects of abuses to a point which is potentially so dangerous that these advances must be stopped now before there is any chance of such mistakes occurring.

Such dangers have been explicitly recognized by the Canadian government. Over a period of months before the federal election last May, the issue of the Social Insurance Number as a system of classification of government information was raised several times during Question Period. Fears were expressed on the part of Her Majesty's Loyal Opposition that such a use of the Social Insurance Number would result in a tendency for civil servants to make authoritarian use of the power this classification technique would give them. The ensuing loss of individuality to an impersonal and mechanistic control was in direct opposition to the principles that a democratic society is based on. However, despite this show of concern, no concrete motions were ever made about the matter.

The related, but not identical, issue of the dangers inherent in the secrecy of government information has been given somewhat more attention. Professor Robert T. Franson's study for the Law Reform Commission of Canada, entitled 'Access to Information Independent Administrative Agencies', makes recommendations concerning the release of government information to the public.

However, we have yet to see any bills passed which serve to alleviate the present situation, even though the Progressive Conservative party made Freedom of Information one of the cornerstones of their campaign before coming into power.

There is a similar potential for abuse in the private sector, and this may prove especially difficult to control without tough freedom of information legislation. Everyone who uses a credit card, writes a cheque or deals with an insurance company is likely to come under the scrutiny of the people who are responsible for 'Consumer Credit Reports'. These are as detailed reports of your financial and personal standing as can be legally determined. Even now, there is considerable recognition of abuses in this system of information classification. It has been charged that many of the less ethical outfits will gather unreliable gossip and second hand reports which then enter credit reports that the consumer doesn't even know exists. The potential for serious injustice can now be seen in the development of our information technology. Mistakes made in a central information file could lead to serious limitation of an individual's opportunities in the fields of financial transactions, and employment opportunities; the range of possible abuses is increasing all the time as more and more information about individuals is stored away in sophisticated processing systems. What is needed is a law ensuring access of the individual to such files, and methods by which incorrect reports can be corrected.

As we see many forms of privacy destroyed by institutionalized information systems, it becomes the responsibility of every citizen to learn about these developing problems, and to demand the necessary legislation to control the potential abuse of our new 'Industrial Revolution'.

AIEE!

AIEE!!

AIEE!!

I TAKE IT YOU WANT OUT.

ILLUSTRATION FOR THE CHRONICLE BY PAT MORRISON