ECONOMIC COUNCIL OF CANADA

Report on Intellectual and Industrial Property

January 1971

ECONOMIC COUNCIL OF CANADA

REPORT ON INTELLECTUAL AND INDUSTRIAL PROPERTY

January 1971

Available by mail from Information Canada, Ottawa
and at the following Information Canada bookshops

HALIFAX
1735 Barrington Street

MONTREAL
Æterna-Vie Building, 1182 St. Catherine St. West

OTTAWA
171 Slater Street

TORONTO
221 Yonge Street

WINNIPEG
Mall Center Bldg., 499 Portage Avenue

VANCOUVER
657 Granville Street

or through your bookseller

Price $3.25 Catalogue No. EC 22–1370

Price subject to change without notice

Information Canada
Ottawa, 1971

CONTENTS

LIST OF TABLES AND CHARTS

PREFACE

This Report represents the culmination of some four-and-a-half years of work on the part of the Council, in response to a specific Reference from the Federal Government. In accepting this Reference, the Council recognized the importance of bringing the key topics with which the Reference was concerned within the ambit of the long-term economic objectives to which the Council's attention is directed in its legislative terms of reference. From the outset, however, the Council was fully conscious of the complexity and inherent difficulties of the issues covered by the Reference. These issues do not, in many instances, lend themselves to easy analysis leading to policy prescription.

The Council has already published two reports under this Reference. One sets out necessary elements for an improved approach to consumer affairs at the federal level. The other sets out an economic rationale for the conduct of competition policy in Canada. This third Reference Report is concerned with intellectual and industrial property -- patents, trademarks, copyrights and registered industrial designs. In the light of the complicated and extensive nature of the issues involved, this Report has been the most difficult to develop.

The subject matter of this Report has constituted part of the agenda of nine meetings of Council; since the Council meets only five to six times a year, it has consumed almost the equivalent of a year of Council deliberations. Out of these deliberations has emerged a broad framework in which questions of intellectual and industrial property in Canada can be viewed in a more coherent way, having regard to the many aspects of public interest that are involved. The Council hopes that this framework will assist the formulation of policy affecting these matters on a sounder and more consistent basis within the larger context of innovation policy and information policy.

When the Council makes recommendations on policy, it does so on the basis of an internal consensus of its membership that the analysis underpinning the policy advice is valid and that the policy prescription follows from this analysis. In each of its Annual Reviews, in certain other reports, and in the case of the two earlier Interim Reports under this Reference, the Council has sought and

achieved such a consensus. For this Report, however, it has not been possible to achieve a complete consensus. In particular, two members of the Council -- Marcel Pepin of the Confederation of National Trade Unions and Donald MacDonald of the Canadian Labour Congress -- wish to have it stated that they cannot concur completely with the analysis and recommendations of Chapter 7 dealing with copyright. More specifically, Mr. Pepin believes that the subject of copyright should have been treated, not as an aspect of our society's broad information system, but as a special area where creative works are considered as personal property with attached fundamental rights, both direct and auxiliary. In conjunction with this view, he would suggest stronger and more extensive protection for an author than the Report proposes and a state-financed body to supervise and enforce these property rights. Mr. MacDonald's particular reservation concerns his view that there should be a performing right for the performer, so that if his performance is recorded in one medium and subsequently used, purchased, or sold, to a neighbouring medium, then payment should be due to the performer as well as to the prime producer for the use of the performance. In his opinion, this would provide a basis for effective collective bargaining with prime producers regarding residual payments to performers when the recording is used in any neighbouring media.

While it might have been possible, in these circumstances, to resolve these reservations on the basis of further analysis and of further deliberations in the Council, any such course would have at least involved a substantial delay in reporting on the copyright aspects of the Reference. Many countries are presently undergoing re-examination of their systems of intellectual and industrial property law, and as we point out in this Report, the international calendar of negotiations is heavily charged. The Council, therefore, has decided to release its Report to the public and the Government at this time because the decisions that have to be made about these laws in the immediate future will have significant implications for the achievement of Canada's long-term economic objectives as treaties are prepared and domestic laws adjusted.

Arthur J. R. Smith
Chairman

CHAPTER 1

INTRODUCTION

This is the third and last in a series of reports by the Economic Council of Canada arising out of a special Reference from the federal government, dated July 22, 1966. Under the terms of the Reference, the Council was requested:

> "In the light of the Government's long-term economic objectives, to study and advise regarding:
>
> (a) the interests of the consumer particularly as they relate to the functions of the Department of the Registrar General [now the Department of Consumer and Corporate Affairs];
>
> (b) combines, mergers, monopolies and restraint of trade;
>
> (c) patents, trade marks, copyrights and registered industrial designs."

The Economic Council was further requested to carry out studies that would be,

> "... a first and necessary step in the determination of a cohesive economic policy in relation to these important matters considered as a whole and in relation to each other with a view to bringing the policy in these matters into harmony with the overall economic policy of Canada and the needs of the consumer and other important segments of the economy."[1]

---

[1] Press Release by the President of the Privy Council, July 22, 1966.

The first part of the Reference formed the subject of the Council's *Interim Report -- Consumer Affairs,*[1] published in 1967. A second document, the *Interim Report on Competition Policy*, published in 1969, dealt with "combines, mergers, monopolies and restraint of trade". The present Report is concerned with "patents, trademarks, copyrights and registered industrial designs". Earlier we had considered publishing a fourth report summing up the work on the Reference as a whole. But we have now concluded that this would be redundant. The final chapter of the present report, however, emphasizes the three central themes that have shaped our analysis and recommendations for the Reference as a whole -- the importance of the interests of consumers and the general public in the fields of economic policy under this Reference; the need to use economic resources as productively as possible; and the economic importance of knowledge and information.

In accordance with the first of these themes, we believe that our recommendations here concerning patents, trademarks, copyrights and registered industrial design will bring the general public and consumer interest effectively into an area of public policy where it has not been adequately expressed and implemented before. In the past, this area has been too much regarded as the specialized preserve of directly interested groups such as inventors and their associates, authors, publishers, trademark owners and members of the specialized patent and copyright branches of the legal profession. These are important groups, contributing a great deal to the community, and their interest in this sector of the law is entirely natural and proper. It must also be recognized, however, that the larger questions of innovation and information with which they are concerned, far from being a relative intellectual backwater, are of central significance in the longer-term evolution of all economies and societies -- particularly those which, like Canada, appear to be entering upon the so-called "post-industrial" stage of their development, when

---

[1] The full title of this Report is *Interim Report -- Consumer Affairs and the Department of the Registrar General.* The Department of the Registrar General has of course since become the Department of Consumer and Corporate Affairs.

economic advancement becomes increasingly knowledge-based. This is why this area of policy must cease to be regarded as a relatively specialized and esoteric activity and instead be properly incorporated into the mainstream of debates and decisions regarding Canadian economic policy generally.

We also believe that the recommendations in this Report will improve the dynamic allocation of resources in the Canadian economy. One of the comparatively novel features of the Report, especially in its treatment of patents, is its examination of the impact of intellectual and industrial property[1] laws on resource allocation in relation to Canada's world position and its balance of international transactions in knowledge and information.

Finally, we believe that this Report will draw greater public attention to the growing importance for Canada of economic arrangements bearing on knowledge and information -- not just in these particular branches of policy, but in many others. Canada is already, to a significant degree, a knowledge-based and information-based society, and must become even more so if its economy and civilization are to grow and develop satisfactorily in the future. Canadians must try to think very clearly about the handling of knowledge and information and their incorporation into the innovative process. They must get rid of the idea that there is something low, immoral and degrading about considering the *economic* aspects of these matters (redundance). In fact, as anyone knows who has had experience in administering major cultural or scientific endeavours, these are fields of activity

---

[1]The expression "intellectual and industrial property" has been employed to cover all of the four principal bodies of law to be dealt with in the present Report. The term "intellectual property" is commonly applied to copyright; "industrial property" tends to be more associated with patents, trademarks and industrial designs. This is not, however, a universally observed distinction -- the term "intellectual property" is often applied to all four areas.

more characterized than most by the classic economic problem of allocating limited resources among virtually unlimited and often vigorously competing alternative ends. If the economic management is poor, projects which might have made a highly worthwhile contribution to the advancement of Canadian civilization may go down the drain; if it is good, the country's available resources of talent and creativity will be deployed to something much closer to maximum possible advantage.

On the face of it, there is much about existing arrangements for handling knowledge and information that seems paradoxical. For example, Canadian governments temporarily restrict the use of certain productivity-improving inventions by means of a patent law, yet at the same time spend substantial public funds to spread knowledge about productivity improvements and encourage their general adoption by Canadian industry. Governments also give an author a copyright that normally provides him with a potential for a financial return on every copy of his book that is sold, then set up public libraries so that some of these copies can serve many users, in a way that may deny to the author sales that he might otherwise have had. Manufacturers and distributors are granted the use of trademarks as an informational device, yet may have this right withdrawn if they use the device in ways which appear to be to their private advantage but are in contravention of the purposes and the letter of legislation such as the Combines Investigation Act.

Some at least of these apparent paradoxes may be resolved by looking deeper into the policy objectives involved, and especially by utilizing, as we do here, the concept of a "total information system" in Canada. This concept, to be described in Chapter 2, derives in part from the lessons and insights that people have gained, more often than not the hard way, from struggling to make proper and efficient, as opposed to merely fashionable, use of computers and modern communications technology.

The paradoxes mentioned, however, do serve as a reminder that Canada has many different policies bearing upon innovation, information and knowledge, and that the laws of intellectual and industrial property are only a part -- albeit a fairly important part -- of a much broader policy picture. The overriding objective

must be to get the policy mix right. There must be a recognition that the production and use of knowledge and information are closely interrelated, and that the innovative process ordinarily does nobody much good until it is total and complete. An invention benefits neither the inventor nor the consumer significantly until the product directly or indirectly resulting from it gets widely distributed. Similarly, a little-read manuscript reposing on an author's shelves is usually of small value either culturally or economically, except possibly as a workbook for a later and better manuscript. And there are other interactions. Out of the present generation of technologically curious Canadian invention-users comes part of the next generation of Canadian inventors. Out of the present generation of readers and film-watchers comes the next generation of authors and film-makers.

It is indeed an entire climate and environment that must be sought -- an environment characterized by good access to information of all kinds, intellectual curiosity, eagerness to learn, speculative thinking, experiment, enterprise and the entrepreneurial spirit. To obtain all this, there must be efficient distribution as well as production of knowledge, information and innovation -- a spreading about of these things. From this process will derive the kind of advancing society that benefits, firstly, consumers; secondly, artists, researchers, inventors and other creative people; and finally, and very importantly, the highly essential "innovative entrepreneurs" in between. It is with this broad objective in view that the present Report has been written, and with the hope that the recommendations which it contains will help, modestly but significantly, to move Canadian society and the Canadian economy in the directions indicated.

TIMELINESS OF A RE-EXAMINATION OF INTELLECTUAL AND INDUSTRIAL PROPERTY

The single most important reason why a re-examination of Canada's laws of intellectual and industrial property is appropriate at the present time has already been mentioned and will be elaborated in the next chapter; these laws are part of the larger, interrelated areas of innovation policy and information policy, where new technology and the movement towards an increasingly knowledge-based economy and society are

throwing up issues of such scale and significance that no part of the existing policy structure can remain unaffected.

There are, however, additional reasons why law and policy affecting patents, copyrights, trademarks and registered industrial designs should be re-examined at the opening of the 1970's. To begin with, such a re-examination is clearly essential in relation to the multilateral reduction of international trade barriers that has taken place over the postwar period. One effect of this reduction has been to throw into sharper relief the existence in Canada and other countries of important nontariff barriers to international trade, including barriers built into intellectual and industrial property laws. In Canada, as our analysis will show, the latter group of barriers may be divided into two classes: barriers which effectively protect Canadian domestic production against import competition; and barriers which protect no domestic production since none exists, but which result in Canadians paying higher prices for imported goods and services than are paid by people in other countries -- even other countries where, as in Canada, the goods and services in question are covered by patent or similar protection.

Re-examination of these laws is also appropriate in connection with the Economic Council's *Interim Report on Competition Policy* and the revision of Canada's competition policy currently in progress. The close relationship between laws for the control of "combines, mergers, monopolies and restraint of trade" and other laws such as the Patent Act which in effect grant limited, special-purpose monopolies has long been recognized. The coexistence of two such bodies of law need not be inconsistent when viewed in relation to broad issues of resource allocation and major economic goals, provided always that neither body unnecessarily exceeds its true province and impinges improperly on the territory of the other. This may happen, for example, when a patent system that is already furnishing adequate rewards to successful inventors and innovators is extended into a vehicle for the carrying on of restrictive trade practices which would ordinarily be prohibited by competition policy. It is obviously vital to co-ordinate law and policy in these two areas so that basic objectives in both are attained and the least possible conflict occurs.

A fourth reason for re-examination is that, as long ago as the late 1950's, the [Ilsley] Royal Commission on Patents, Copyright and Industrial Designs found much in the laws that appeared to require change. One of the purposes of this special Reference is to consider the economic implications of the Commission's recommendations, as yet largely unimplemented, in the light of conditions of the 1970's.

Finally, the fact that systems of intellectual and industrial property law are to an important degree international systems, and that other countries, too, are experiencing strong pressures for re-examination and change, makes it imperative that Canada review its position within an international context. The immediate future calendar of international negotiations is heavily charged, and Canada must make early decisions about where its national interests lie.

ORGANIZATION OF THE REPORT

The next chapter of the Report deals with broad questions of innovation, information and knowledge that have major relevance for the Report as a whole. It is followed by a third chapter that focuses special attention on some particular aspects of the role of patents, trademarks, copyrights and registered industrial designs in economic life. Because change in the relevant government policies is not merely desirable but has become virtually inevitable in the light of technological and other developments, attention is concentrated on the socio-economic objectives which these and other closely related policies seek to achieve. Only if fundamental objectives are widely agreed upon and subsequently kept in mind can policy alterations be carried forward intelligently and consistently.

The Chapters from 4 to 8 inclusive then examine successively, in more detail, patents, industrial designs, copyrights and trademarks. In the case of patents, policy recommendations are contained in a separate chapter (Chapter 5); in each of the other three cases, analysis and policy recommendations appear together in a single chapter. Finally, there is a brief ninth chapter, which does not attempt to recapitulate all of the sometimes quite complex policy recommendations of the Report, but which instead summarizes some of the more important general points made in this and other Reports under the government's special Reference.

The concluding chapter is followed by five appendices. The last of these contains a list of written briefs submitted to the Economic Council in connection with the government's special Reference. We would like to take this opportunity to thank sincerely all those who devoted time and trouble to the preparation of these briefs, which have been of great assistance to us in our work.[1]

[1]Persons or organizations submitting briefs were invited to do so on the understanding that the briefs would remain confidential if they wished, and that any question of publication of such briefs was entirely at the discretion of the persons or organizations themselves.

CHAPTER 2

INNOVATION, INFORMATION AND KNOWLEDGE

In order for its economy to grow and develop satisfactorily, a society must be innovative; to be innovative, it must be well-informed; and to be well-informed, it must be good at the production, distribution and use of knowledge. This statement can be amplified and qualified in a number of ways: knowledge is desirable for other ends besides economic growth and development, and knowledge alone does not guarantee innovation and economic advancement. The statement nevertheless expresses a set of relationships that is of great significance for economic policy and that constitutes both a starting point and a necessary background and context for the present Report.

But how much have these broader issues really to do with patents, trademarks, copyrights and registered industrial designs? Some of the connections are obvious enough. The patent system has long been regarded as a policy tool for the encouragement of industrial innovation. Copyrighted works are one of the ways in which knowledge, including the knowledge necessary for industrial innovation, gets distributed. Many newly innovated products are first introduced to the market under familiar trademarks. But these well-known facts accepted, cannot the policy problems involved in intellectual and industrial property be examined within a somewhat narrower and more familiar framework? The answer is no. The world has changed too much lately, in ways which absolutely necessitate looking at patents, copyrights and so forth in a broader context than before. There is, for one thing, a major information revolution under way which both poses new problems and alters permanently people's understanding of many old ones. It is impossible, for instance, to consider for long the very practical and urgent question of the copyright status of material passing through computerized information systems without being struck by the broad new social and economic issues involved and without experiencing a need for some framework of thinking, be it ever so rough and preliminary, about information in general. To provide such a framework is one of the principal purposes of this chapter, whose relevance to the Report as a whole will become gradually more evident as successive particular problems are taken up.

Intellectual & Industrial Property

The subject of innovation has been discussed in a number of previous publications of the Economic Council, notably the Science and Technology chapter of the *Fifth Annual Review*. There, one of the central points made was that, for policy purposes in particular, innovation should be thought of as a total innovative process, involving a series of activities extending all the way from basic research to the final delivery of products in the market place. Innovation certainly requires knowledge, including especially knowledge in the form of new ideas, but it requires a good deal more than that. The innovation policies that now constitute an important branch of most countries' overall economic policies therefore operate with a number of instruments on a number of fronts, although of course they have a common objective of encouraging new and more fruitful combinations of the basic economic factors of production -- of encouraging, that is, the "factor productivity" or "residual" element in economic growth, with its yield to the consumer of new and improved products and of more efficiently produced old products.[1]

While policy normally strives mainly to increase the commitment of resources to innovation, it must guard against the very real danger that a society may become *too* innovative, at least in certain directions. To use one of the Robinson Crusoe examples beloved of elementary economics teachers, if Crusoe spends too much time innovating a shovel for himself and not enough time harvesting breadfruit and coconuts, he is likely to starve to death. In a more modern setting, the possibility of too much innovation is suggested by the fate of some excessively future-oriented companies that have put too many of their resources into new product development and not enough into current production and sales. Also the balance *within* a society's total innovative effort is important. If, for example, patent incentives are so strong as to attract an excessive proportion of the always limited supply of innovatively talented people into the production of patented inventions, and away from teaching and basic scientific research, the result will be self-defeating in the long run as the next generation finds itself with too few well-trained inventors and with insufficient grasp of fundamental science for its effective application. On the other hand, if very large and

---

[1]For a discussion of factor productivity as an element in economic growth, see Economic Council of Canada, *Fifth Annual Review*, Ottawa, Queen's Printer, 1968, pp. 20-25.

generous resources are available to support teaching and basic research, thus attracting a very high proportion of innovatively talented people into these activities, the result may be too little inventive and innovative activity on the frontiers of knowledge-use.

Even in its knowledge and informational aspects alone, innovation policy comprises a wide variety of instruments. Patent systems and other intellectual and industrial laws are among these instruments, but there are other important ones as well. To encourage new ideas and idea-expressions, governments employ such devices as awards, grants, subsidies and tax concessions in favour of industrial research and certain forms of artistic activity. In addition, governments themselves engage directly in research and other innovative activity, while assisting other noncommercial institutions to do the same. Obviously, too, the highly significant contributions of government-supported educational systems must be taken into account. For example, part of government support to higher education may be classified as direct encouragement to research and innovation, although the total amount of this part is impossible to measure precisely.

The total picture of policies to encourage the innovative process at all its stages is broader still. What really has to be done is to create a pro-innovative climate or environment. One important aspect of this consists of improvements in business financing arrangements and various other kinds of support to innovative firms, especially small and medium-sized ones. There are important pro-innovative policies at the provincial as well as the federal level of government; the work of provincial research councils and foundations is but one example. The contributions of certain Crown corporations and agencies such as the National Research Council, the Defence Research Board, and Atomic Energy of Canada Limited may also be mentioned. Competition and commercial policies, too, can be helpful in so far as they put firms under more competitive pressure to desert the easy life and start innovating. The list of ways in which a more pro-innovative environment can be brought about is a very long one.

The laws of patents, copyrights, trademarks and registered industrial designs must therefore be seen as taking their place in a much broader group of innovation policies. In the aggregate, innovation policy must seek not only to achieve an appropriate commitment of resources to innovation and to improve the efficiency of individual policies towards this end, but also to arrive at an appropriately balanced mixture of different policies working together.

There is, however, another broad policy context within which policies affecting intellectual and industrial property must be examined: that of information and information policy. As evidence of the rapid growth of this area of policy in Canada, one may point to the appearance of such bodies as the Department of Communications, the "Telecommission", and Information Canada. Investment decisions of great long-range economic import such as those affecting Canadian communications satellites have been or are in the course of being made. Many of these decisions have a highly significant bearing both on the innovative process and on the laws of intellectual and industrial property. For a specific example of the connection between these laws and information policy, one need look no further than the concern being expressed by copyright owners over the actual and potential effects of new information technology such as that involved in computers, electrostatic copiers and videotape recorders.

The growing socio-economic importance of information and its handling by now hardly needs arguing. Already, it is a cliché to predict that the information revolution currently in progress may prove to be the most world-transforming of all the successive industrial revolutions that have followed the initial eruption, in eighteenth-century Britain, of steam power and the mass production of textiles. The cliché is, however, unavoidable, being at once too wide-ranging in its implications and too supported by burgeoning evidence on every hand to be ignored. It seems clear that not only the technology and the organization, but also the very nature and boundaries of whole industries such as publishing will undergo upheaval. Indeed, the process is already well under way. But even this type of disturbance is likely to be only a beginning.

Information and its transmission over distance have a peculiar significance for Canadians, our geography and other circumstances being what they are. It may be no coincidence that a Canadian, the late Harold Innis, was probably the first scholar to devote sustained attention to some of the longer-range socio-economic ramifications of the subject. More thoroughly steeped than any person before or since in the historical process of Canadian economic development, including notably the transportation aspect, Innis turned increasingly, in his later career, to a consideration of the role played by communications in the rise and fall of empires and civilizations. For this purpose, he found it necessary to reach much further back into history than he had ordinarily done in his previous published work. His reports on his pioneering explorations[1] remain difficult to interpret but there is no mistaking the strength of the evidence presented that revolutions in communication have exerted a decisive influence on human history, nor the relevance for the future that subsequent technological developments have shown this finding to have.[2]

People have of course become more information-conscious since Innis's time. New intellectual disciplines such as those of cybernetics and organization and communication theory have grown apace, while at the same time the broadening use of new information technology has helped to spread the realization that a large part of economic activity, as well as of human functioning and the operation of civilized life generally, consists now and has always consisted of the generation, storage, retrieval, processing, transmission and use of information:

> "... The computer accepts information from its environment through its input devices; it combines this information, according to the rules of the program stored in its memory, with information that is also stored in its memory, and it sends information back to its environment through its output devices.

---

[1]H. A. Innis, *Empire and Communications*, Toronto, Oxford University Press, 1950, and *The Bias of Communication*, Toronto, University of Toronto Press, 1951.

[2]More recent scholarship, including notably that of Marshall McLuhan (*The Gutenberg Galaxy*, *Understanding Media*, etc.) has, of course, expanded the literature on communications and related subjects.

> "The human brain also accepts inputs of information, combines it with information stored somehow within and returns outputs of information to its environment. Social institutions -- such as the legislature, the law, science, education, business organizations and the communication system -- receive, process and put out information in much the same way. Accordingly, in common with the computer, the human brain and social institutions may be regarded as information-processing systems, at least with respect to some crucial functions. The study of these entities as such has led to new understanding of their structures."[1]

Many persons working in industries such as the mass media have known for a long time that information is a pervasively important product and that for an individual to live and work in an industrial society is to be connected more or less well to a complex of information systems. Such persons have some right to ask, "What else is new?" and to feel that other people's dawning awareness of these matters is a revelation of about the same innovative calibre as the discovery by Molière's Monsieur Jourdain that he had been speaking prose all his life.

But awareness has many levels, and there is in fact much that is significantly new about the more sophisticated forms of contemporary information consciousness. A good deal of this is attributable to the powerful mental discipline imposed by the computer, with its infinitely tiresome insistence that everything, but everything, be spelled out for it -- if not always by final users, then by programmers and inventors of programming languages. The often closely related activities of systems analysis and the study of how to push larger amounts of useful information along electronic channels of given band width have exerted a major influence in the same direction. Among the many effects of these disciplines has been a clearer realization that information is a commodity; that it has a cost and a value; and that many of the ways in which information has been handled up to now have been extraordinarily and quite unnecessarily wasteful.

---

[1]John McCarthy, "Information", *Scientific American*, September 1966, p. 65.

Much of the sloppiness and poor economics that have characterized the handling of information in different kinds of organization has been found to arise from inadequate specification of organizational goals and the means of reaching those goals -- in short, from bad planning. But the indicated remedy in some cases may go much further than an enhancement of information consciousness and a general pulling up of managerial socks. In the end, the entire structure and style of the organization, including the methods and locations of its decision-making, and the prevailing conception of what business it is really in, may come to be profoundly altered.

Greater information consciousness has also begun to spread into more branches of economics. In traditional microeconomic analysis, it has been customary for many purposes to treat the "state of information" as given -- as part of the infrequently moved scenery against which the drama of other commodities is enacted. This is still a justifiable simplification in the study of many economic problems; but, for others, such as advertising, manpower adjustment and the subject matter of the present Report, it clearly will not do, and it is partly out of the examination of this type of problem that elements of a more specific "economics of information" have begun to emerge.[1]

---

[1]See, particularly, the following (it should be noted that this literature is by no means devoid of controversy):

George Stigler, "The Economics of Information", *Journal of Political Economy*, vol. 69, June 1961; Fritz Machlup, *The Production and Distribution of Knowledge in the United States*, Princeton, Princeton University Press, 1962; Jacob Marschak, "Efficient and Viable Organizational Forms", Mason Haire, ed., *Modern Organization Theory*, New York, John Wiley & Sons, 1959; B. V. Hindley, *The Economic Theory of Patents, Copyrights, and Registered Industrial Designs*, Ottawa, Economic Council of Canada background study, 1971; A. Alchian, "Information Costs", *Western Economic Journal*, vol. VII, 1969; K. J. Arrow, "Economic Welfare and the Allocation of Resources for Invention", *The Rate and Direction of Inventive Activity*, Princeton, Princeton University Press, 1962, pp. 609-626; Harold Demsetz, "Information and Efficiency: Another Viewpoint", *Journal of Law and Economics*, April 1969.

Certain economic characteristics of information, considered as a commodity in its own right, will be an unavoidably recurring theme in the chapters that follow. To list and explain some of these characteristics now will permit later references to them to be brief, thus expediting the discussion of policy problems. The next section is accordingly devoted to such a listing.

INFORMATION AS A COMMODITY

A first requirement is a working definition of *information*. In order to be reasonably consistent yet embrace all of the varieties of ideas and idea-expression that fall within our terms of reference, the definition must be broad.[1] It must include not merely "hard" information, but also unproven theories, fancies, fictions, suggestions, entertainments -- in short, everything that can be transmitted as some sort of message between man and man, man and machine, and machine and machine. Fictions and other "falsities" cannot be excluded; for all that they sometimes shut out truth and cause other social destruction, they have, at least as a class, their value and their place, which for some particular items is in the highest and most "informative" rank of human achievement. *War and Peace*, too, is information.

Knowledge must also be somewhat arbitrarily defined and distinguished from information. To inform is an action; to know, a state or condition of being informed. It is convenient for our present purposes to think of knowledge as something stored, whether in a human brain, a library, or a computer memory -- but

---

[1]The definitions of "information", "knowledge" and "learning" employed here are rough-and-ready ones adapted to the particular purposes of this Report. In such a controversial area as information, they would not command the adherence of all the recognized experts in the field, who often differ among themselves on matters of definition. It may be recalled that philosophers have been debating the nature of knowledge for some thousands of years.

which, when it flows in or out, acquires the character of information. Thus the processes of informing and becoming informed emerge as the transmission of knowledge between its multiple storage points in the system and as the drawing-in to those storage points of messages coming from outside the system altogether -- from the surrounding environment.

Finally, *learning* may be defined as adding to stocks of knowledge. This may start with the absorption of raw sense impressions or other comparatively basic information from outside the system, but much the most important part of it is likely to consist of the subsequent rearrangement of previously stored knowledge into newly meaningful patterns. For a given society or economy and its "total information system", there is a sense in which learning occurs just once. So long as the new knowledge -- a mechanical invention, let us say -- has been learned and stored somewhere in the system, it is theoretically "available" to the whole system. But in practice this may not be so; blockages may occur, and even if they do not, the cost of moving the new knowledge around the system and repeating part of the original learning process at additional points of storage and use must be taken into account.

How much moving and "relearning" of information takes place in this fashion depends on a multitude of factors, including the value that a given piece of information has for different individuals located in different parts of the system. But in general, it can be said that the economic efficiency of a society's "total information system" is to be judged not only by its original "learning" ability, but also by its ability to spread knowledge quickly, in low-cost and accessible form, among all those able to make good use of it. This is an essential relationship between innovation and information; a high-innovation society is likely to be outstanding at *distributing information* as well as at *producing knowledge*. Only if both phases of the system are working well can large benefits be assured to "...the consumer and other important segments of the economy". Which phase plays the most "creative" and initiating role is something of a chicken-and-egg problem which may never be satisfactorily resolved.

On the basis of these rough and provisional definitions, the following characteristics of information may be noted:

1. It is a very *complex* commodity, in more senses than have already been suggested. For one thing, there is not really any single "information industry". Information is produced and distributed, partly by industries like newspaper publishing, specialized in its handling, but in large part also by many, many other industries, institutions and individuals.[1]

Secondly, information is used at every one of the many stages of the productive process. It can be essentially a service for immediate final consumption, as in the case of a television program with little intellectual content but wide appeal, or it can be an "intermediate input" of little direct interest to final consumers but great significance to some manager making a production decision. Probably no other commodity is so ubiquitous, so multiform or so vital to the functioning of the economy.

Finally, information itself appears in many stages of processing. A new idea, for example, may be in such raw form that it can be used only by a select priesthood of mathematicians, philosophers or physicists. Most others may not even be aware of its existence, let alone its content or potential applications. To make it more accessible and usable may require expensive processing and decoding into a more widely intelligible "language".

2. Information is *costly*, although people tend to forget this because of certain product characteristics (to be noted later) that make *some* information ultimately available at so low a unit cost that it seems virtually free. But in fact information is costly to produce, store, retrieve, process and transmit. For final consumers and other "clients" it is also costly to find and if necessary process further into its ultimately usable form. Almost everyone has had the experience of spending valuable time and money in the search for some badly needed piece of information. As an example of processing cost borne by the user, one may think of a senior executive angry at having had to spend a whole afternoon obtaining from his subordinates an explanation

---

[1]See F. Machlup, *op. cit.*, especially Chapter III, "Knowledge-Producing Industries and Occupations", pp. 44-50.

of the meaning of an obviously important but abstruse and jargon-ridden document. When he finally observes, "Well why didn't you say so in the first place?", he is in effect postulating that much of the final information-processing carried out in part by himself could more economically have been performed by people whose time is worth less than his own. In so doing, he puts his finger on one of the central issues of information economics -- the optimal location of processing. Among the reasons this is important is that shifting the location of processing may in time also shift -- perhaps subtly and unintentionally -- the location of much of the decision-making. On the other hand, if what is shifted to other people is relatively routine, the really important decision-making may remain where it is and indeed improve in quality. But in either case, the whole picture may later undergo drastic alteration if some technological breakthrough sharply changes the relative costs of processing ("manufacturing") and transmitting ("shipping") information.

3. That information is *valuable* will be largely apparent from common experience and from the preceding discussion. But it is never so valuable that its cost should not be counted. From either a private or a social viewpoint, to be "perfectly" or "nearly perfectly" informed about anything is rarely good economics, and the neurotic decision-maker who goes on too long reaching out for the last, extra pieces of information that he vainly hopes will reduce all his doubts and risks to the vanishing point may be using resources most wastefully. At the start of the decision-making or consuming process, more information may be enormously valuable in relation to its cost, but sooner or later a point is reached when living with some remaining ignorance and uncertainty is the most rational strategy. This proposition can be generalized into a useful guideline for making policy decisions about the knowledge-producing and knowledge-distributing problems of whole societies.

4. *Knowledge can be destroyed, and keeping up a stock of knowledge is not costless.* On the whole, knowledge is fairly durable, especially when it is safely stored at many points in the system. But certain particular knowledge stored only in the brains of wise men may die out when they do; and war, vandalism and other such disasters can permanently wipe out even more widely held knowledge, as almost certainly happened to some

of the knowledge of antiquity during the Dark Ages, although fortunately other portions were stored and preserved in monasteries for later redissemination. As for the cost of simply keeping up a knowledge stock, the retrieval capacities of a human memory must be kept effective by constant mental exercise. Storage of knowledge in a computer memory involves at least some small costs of machine maintenance and staff salaries, but usually more important is the "opportunity cost" of devoting limited storage capacity to certain categories of knowledge when other valuable categories might be stored in their place. For example, it might be very wasteful to store a customer's full street address in the "memory" of a computerized airline reservations system if that meant excluding his credit-card number.

The value of any piece of stored knowledge depends on the use that can be made of it and on its distribution elsewhere in the system. Its value consequently tends to change when these factors change. Sometimes the value to an individual of knowing things like new technical processes or news items with major implications for the stock market will be very much higher or lower depending on whether he alone has the knowledge or it is widely distributed in the system. Society's interest, by contrast, is normally that knowledge should be possessed by everyone who can make socially beneficial use of it.

5. Notwithstanding what is said above about knowledge destruction, *ordinary use need never deplete a stock of knowledge*, and in this it differs importantly from a stock of material goods such as an auto dealer's inventory. One person can use it and there is still just as much left for the next person to use. To be sure, "information loss" can occur -- that is, from the point of view of an intended recipient, knowledge can be lost in transit from one storage point to another.[1] But as long as it remains safely stored somewhere in the system, it is still available for indefinite re-use. This helps to keep down the price, especially of widely demanded items such as news stories whose sometimes quite high initial production costs need be incurred just once.

---

[1] Information can also be lost in processing (like buttons in a laundry) as well as in simple transit from one point to another. Thus a poor popularization of an idea, or inadequate prior study of it by a teacher, may strip away much of its pith and substance, to the detriment of those on the receiving end of the transmission and other members of society as well.

The new knowledge is "stored" in the news medium's editorial room and can then be used again and again in the sense of being conveyed to each of many millions of readers or viewers. The resulting scale economies bring the cost per reader or viewer down to a tiny figure.

6. The word "feedback" is information jargon, roughly signifying "response", and *the production of knowledge can involve tremendously complex feedbacks*. For example, producer and user may directly interact. The first transmission of information to the user may be followed by a backflow of comments and requests for further information that may in themselves be highly informative to the producer; and so the process goes on, until it often becomes difficult to identify the chief "producer" -- to say who has contributed most to the joint accretion of knowledge. This is one reason why "creativity", "originality" and "misappropriation of ideas" are such difficult and elusive concepts, not least in a policy setting. Their impreciseness is but an aspect of the larger fact that the advancement of society, including its economic advancement, rests both on Man the Creator and Man the Imitator. Neither can do without the other. One of the most respected of modern film-makers has written:

> "... A lot has been said about the value of originality, and I find this foolish. Either you are original or you are not. It is completely natural for artists to take from and give to each other, to borrow from and experience one another."[1]

From the standpoint of Canadian economic policy, the critical point here is that production and use of knowledge are so intermingled -- that highly effective producers of knowledge are typically highly effective users of it, and *vice versa*. This means that Canada's performance as a knowledge-producer and its performance as a knowledge-user are closely interrelated. Canada must indeed be a very capable producer of original knowledge, but not to the exclusion of achieving fast, low-cost internal *distribution* of information, coupled with the most favourable possible access to foreign information.

---

[1] Ingmar Bergman, *Four Screenplays of Ingmar Bergman*, New York, Simon and Schuster, 1960, p. xix.

7. *Information can be substituted for other commodities such as goods and energy, and other commodities can be substituted for information. One form of information can also be substituted for another.*[1] The first part of this substitution relationship helps to account for a number of contemporary economic developments such as the rise of the international corporation. The lower real cost of modern information technology (as well as of modern air travel) not only facilitates the control of company operations over a wider area, it also encourages the substitution of information flows for other flows. Thus the most profitable way of developing a European or Canadian market for an American company's products may change from the export of goods from the United States to the transmission of technological and other information (some of it stored in travelling human brains) for the establishment and maintenance of a local production base. In some instances, the international transfer of information may be more vital to the operation than the more conventional capital transfer that accompanies it, since a larger proportion of the needed financing than of the needed knowledge may be available locally. The international corporation should therefore be viewed not only as a control and financing device, but also as a knowledge machine and a widely ramifying information system. Many of the policy issues that arise concerning it may usefully be analysed in these terms.[2]

As an economy develops, new forms of information must be substituted for old. Thus, as was noted in the Economic Council's *Interim Report -- Consumer Affairs*, the growing length and complexity of distribution chains and the consequent lessening of informative face-to-face contacts between buyers and sellers create a growing need for new ways of transmitting reliable product information to consumers.[3]

---

[1]Changes in information may also "shift the production function" -- that is, change the proportions in which other productive factors such as labour and capital are used.

[2]Cf. H. G. Johnson, "The Efficiency and Welfare Implications of the International Corporation", C. P. Kindleberger, ed., *The International Corporation*, Cambridge, Mass., M.I.T. Press, 1970.

[3]Economic Council of Canada, *Interim Report -- Consumer Affairs*, Ottawa, Queen's Printer, 1967, p. 3.

8. *While information is costly, and while it can often be scarcer than would be socially desirable, it can also be overabundant at various points in the system, and this is a major and costly problem in itself.* Already the term "information pollution" has been coined to describe the situation of people assailed by an excess of trivial messages. Many communications specialists prefer to classify unwanted messages as non-information or "noise". Whatever the terminology, the economic problem involved is an important one, for unwanted messages not only waste channel capacity, but also take up users' time and render more cluttered and costly their search for truly relevant information. No complete solution is possible, especially for mass media, since the cost advantages of large-scale production and distribution of standardized messages have to be traded off against the desirability of meeting individual users' requirements -- one man's information being another man's noise. In a labour market, for example, a standardized transmission of available job openings in a given field may be well worth receiving by one job-seeker, but sheer noise and waste of time for another whose qualifications do not fit those demanded.

If all that modern information technology could do was to lower the unit cost and increase the volume of the "total" system's gross throughput of information-plus-noise, it would be much less significant than it is. Its more exciting promise, exemplified in today's early versions of time-shared, computerized information systems with remote terminals and random-access storage, is that after many more setbacks and problems of a kind already too familiar, it should greatly improve the "total" system's "signal-to-noise" ratio and deliver a much higher-quality product to final consumers and others -- a product more reliable, more relevant, more noise-free. For a key characteristic of computerized information systems is that they need not be, in the usual sense, yet another mass information medium, delivering at low

cost a comparatively limited range of product.[1] They can improve the information trade-off -- capture the economies of large scale, yet respond to questions and adapt their output far more to the needs of individual users. Much has been made of the dehumanizing and individuality-suppressing effects of computers. It has not yet been widely perceived that their effects are not all in that direction:

> "In other words, computers can make it possible for people to be treated as individuals in many situations where they are now lumped in the aggregate."[2]

9. Information, especially that involving knowledge which has been processed into relatively accessible form, is often *easily appropriable* at no visible price to the user beyond the cost of helping himself. Many producers and further processors of knowledge live with this fact

---

[1]It is most unlikely, of course, that today's mass media will stand still in the face of competition from more "customized" information products. Assisted by such promised developments as 80-channel cable television, they may themselves be able to distribute, via home-viewing screens and facsimile printouts, an increasingly customized product. Thus the sports fan may receive an individually tailored "newspaper" that permits him to indulge his interest more deeply, to the relative exclusion of other things, while the women's liberationist who considers the very concept of a "women's section" insulting will be able to abstain from either receiving or financially supporting any such thing.

Tendencies towards greater "customizing" of information products are already observable in the magazine industry, where some general magazines have had well-publicized difficulties but where many specialized magazines catering to business managers, sports car or sailing enthusiasts and other such restricted groups have enjoyed great commercial success. Advertisers have inevitably led or followed the trend, and it is intriguing to note that advertising directed towards consumers with specialized interests (and therefore, as a rule, above-average product knowledge) typically contains an above-average ratio of hard information to puffery.

[2]John McCarthy, *op. cit.*, p. 67.

calmly for various reasons. But others do not, and if nothing is done to change things, they may experience a significant loss of incentive. The result, from society's point of view, may be underproduction, underdistribution, or both, of the relevant kinds of knowledge. The problem, important for policy, crops up especially in the more innovative sectors of knowledge, such as knowledge embodied in new inventions and books.

10. For overall policy to be sound and well-balanced, however, it must also take careful account that *many knowledge-producers and -distributors not only do not obstruct but often actively encourage the unpaid appropriation of their work*. Why does this happen? Why, for example, do discoverers of basic scientific knowledge often make no effort whatever to squirrel their ideas away for a profit, but instead rush into the streets like Archimedes, flinging costly and valuable information to the winds? The generosity and undeterrable creativity of great souls no doubt counts for something; but not all genius is altruistic, and other explanations must be sought. In modern times, the position of a productive basic researcher may be such that he has ample incentive to continue his creative work. His out-of-pocket costs plus comfortable living expenses may be looked after by a university and a friendly foundation, business firm or government; and each success may bring fresh rewards -- fame, higher academic salary, invitations to paid travel and lecturing, time off from teaching, greater research support and some usually quite modest copyright royalties. To be sure, not every significant researcher is in this happy position, but the point for policy is that effective incentives to more production and distribution of knowledge can take many forms, both direct and indirect.

At a less-exalted level, a great deal of information appears to be not so much "stolen" as exchanged on a rough barter basis. For example, even extremely patent-conscious companies send some of their best technicians and technocrats to conferences where they impart valuable information to others via papers and demonstrations. The hope is, presumably, that they will not come back empty-handed, but will pick up many useful items in return. Sometimes people are anxious to pool as well as exchange information because the knowledge which they possess individually is not sufficiently reliable or complete to provide a basis for decision-making.

A well-run company or labour union is itself an efficient barter exchange of information. So are lively cocktail parties and great cities, which is one reason why people still go to them in spite of their well-known drawbacks. The process of information barter working at particularly high speed can be observed in a busy financial market, such as a bond or foreign-exchange market conducted largely by telephone. In addition to actually dealing, the individual traders often rapidly exchange with each other information that, if financially backed and systematically exploited, might sometimes be worth considerable sums to some individual. But if the traders paused to take out proprietary rights in each piece of information, hint at but not reveal it, then haggle over a price, their main market might all but collapse. Barter is not always an inefficient way of running a complex exchange activity. That rough barter is what is involved here is suggested by the tendency for a trader who is regarded by his fellows as below par in knowledge and intelligence to be given less information.

Generalizing from this example, it is important that a misguided sense of consistency should not lead to inserting into well-working barter sectors of the total information system unneeded patent or copyright incentives whose main effect will be to "gum up the works".

11. *Information is a product particularly subject to "externalities" -- to differences between the worthwhileness of devoting resources to it as seen by an individual producer or distributor, and the same worthwhileness as seen by society as a whole.* This results, from society's point of view, in an underlying tendency towards overdistribution of information (or noise) in some parts of the "total" system but underdistribution in others. Not all of the system, fortunately, appears to be characterized by large and obvious divergences between "private" and "social" interests, and public policy intervention has tended up to now to be concentrated on certain particular areas of *under*distribution. These have included areas such as inventing and the writing of books where someone is capable of producing or processing socially worthwhile knowledge, but where for various reasons, such as the easy unpaid appropriability of information by others, his own assessment of worthwhileness -- of his likely costs and returns -- of his risks -- is less favourable.

Thus, in the absence of public policy incentives, he may either not produce or process the knowledge at all, or may make it less quickly and widely accessible than the total community would desire. This is one of the major policy problems to which this Report is addressed.

INFORMATION POLICY IN CANADA

In partial fulfilment of our terms of reference, the foregoing prologue has indicated a broader framework in which questions of intellectual and industrial property in Canada should be viewed. Policy affecting these matters is likely to be sounder and more consistent if it is examined in the larger contexts of innovation policy and information policy -- two partly overlapping and closely interrelated areas in which decisions of far-reaching significance must be made by Canadians over the next few years.

Industrial revolutions are unsettling experiences, and that which is occurring currently in the world of information will inevitably occasion much displacement and disturbance. But producers and distributors of information should not, as some appear to do, see this as a threat to their very existence and to the continuance of the valuable functions that they have hitherto performed for society. What is happening, basically, is a remarkable increase in the efficiency, and consequent decrease in the cost, with which information can be handled. This is the kind of economic development that in the long run can benefit buyer *and* seller -- that can make producer, distributor and consumer all better off. The consumer gains a better product at a lower price while producers and distributors gain an enlarged market, and there is every evidence that markets for information are undergoing major expansion. The problem for existing producers and distributors of information should therefore be seen not as a sheer battle for survival, taking perhaps the form of desperate resistance to the new legal frameworks and patterns of business organization that technological and other developments are gradually rendering necessary, but rather as one of change-over and adaptation. This is obviously no small problem and will almost certainly require public policy decisions at various points; but at least it is the right problem to be tackling, and the rewards for those who perceive this early may be considerable.

For Canadians generally, additional problems are emerging from changes in information technology; a well-known example, which does not call for particular treatment here but which has properly been the subject of widespread public concern, is that of safeguarding the individual's right to privacy. It is by no means a new problem (privacy has been grossly invaded in the past under the use of older information technologies), but as with some other problems in this area, recent developments have thrown it into sharper relief.

It would be a pity, however, if problems were allowed to obscure opportunities. Some of these, for Canada at the present time, are peculiarly great. As a spread-out country, located somewhat distantly and peripherally in relation to more intensively developed areas such as the Northeastern United States, Western Europe and Japan, Canada has a particularly strong interest in the quality of communications networks and other parts of the various information systems to which she is connected. Canada's position in the world is indeed somewhat analogous to the position *within* Canada of the North -- an area where people have long been acutely conscious that communications are for them a relatively more important problem than they are for southern Canadians.

One of the most significant promises of new information technology is that it may be able to rectify some of the relative disabilities under which Canada's "total information system" -- and as a result its economy and society generally -- has laboured up to now. It is possible, for instance, that the quality of major parts of our information system can be brought much closer to corresponding U.S. levels, with obvious consequences for our relative competitive position. To go to an example even more specific, it is possible that a bold phasing-in of electronics and a willingness to revamp rather dramatically the existing organizational structures may do away with many of the well-known and long-standing relative deficiencies of libraries at universities and other centres of research in Canada. Provided the national interest in this matter is interpreted in a sufficiently broad-minded and far-sighted way, it may be possible to give Canadians in all parts of the country practicable, low-cost access to the best "libraries" in the world -- "libraries" which will, however, be increasingly international so far as the physical location of much of their storage is concerned.

In framing future Canadian information policy, it will be well to keep in mind the emphasis that Innis placed in his writings on the deep-seated nature of the socio-economic transformations brought about by communications revolutions. What is now occurring is obviously far more than just another wave of technical improvements. To regard it merely in that light would be to run a serious risk of falling into the same kind of trap as certain urban transport planners who, in locating new highway and transit facilities, have in the past relied too heavily on surveys of existing traffic flows and apparent demands for movement, together with relatively simple projections of those flows and demands into the future. What they have tended to overlook has been that really major new transport facilities virtually create new cities (or large parts of them), with new patterns of land use and traffic flow that were in no way prefigured by the original data.[1] Some of the evidence of this more fundamental effect stands clear against the horizon in a metropolitan area such as Toronto, where new mountain ranges of apartment blocks and other high-density, high-traffic-generating land uses quickly spring up along subways, parkways and freeways, especially near stops and interchanges.

The lesson for information policy is that one should think further ahead than the more efficient accommodation of present and readily foreseeable information flows. What is likely to be even more significant about radically new information systems is the new Canadian economy and society that will emerge because of them. This is emphatically not an invitation to throw all costings and hard economic analysis out the window; it rather urges that a more difficult, long-range and dynamic economic analysis must also be used -- an analysis more difficult, in part because a good deal of it will probably have to be constructed especially for the purpose and to be related to other disciplines. This more penetrating sort of analysis may considerably affect the resolution of important practical issues such as universality of access to particular information systems. Short-term analysis may suggest that some systems will be most economic if they serve only a comparatively small number of heavy users in major metropolitan centres.

---

[1]Today, of course, it would also be argued by many people that past transportation planning failed to take adequate account of air pollution and other ecological issues.

The longer-term analysis, by contrast, may point to eventual economies and externalities that justify access to the systems by a much larger proportion of the Canadian people.

It will be especially important to realize that new information systems can have both centralizing and decentralizing effects, tending in some ways to concentrate people and their activities in a few key locations, but tending in others to facilitate a more spread-out, less-congested and perhaps also less-hierarchical style of life. The extent to which one or other of these effects predominates will be greatly affected by the conditions of access to the systems. More than ever before in history, knowledge is power, and how widely that power is held or can easily be accessed will have major implications for Canadian democracy and independence as well as for the Canadian economy.

CHAPTER 3

ECONOMIC SIGNIFICANCE OF INTELLECTUAL AND INDUSTRIAL PROPERTY

Patents, copyrights, trademarks and registered industrial designs are part of a class of policy tools used to improve society's "total information system" in sectors in which the production and distribution of knowledge might otherwise be inadequate. They are, in short, incentive devices, designed to elicit more of certain kinds of "learning" or knowledge creation and certain kinds of knowledge processing. In the case of patents and registered industrial designs, the knowledge to be produced is not in itself the ultimate objective, but is rather an "intermediate input". It must be incorporated into a "total innovative process" and utilized as technical information in order that out of the succession of research, development, invention, pilot plant, etc., there eventually comes a new or improved product or process capable of benefiting society.

In the case of copyright it is the conveyance of information to a broader public that is aimed at -- the presentation of knowledge in such highly processed and accessible forms as books, plays, films and musical compositions. Another innovative process, running from author to publisher to printer to bookseller, is required. Trademarks also aim at the presentation of information -- in this case, flows of product information to final consumers and other buyers. These flows are chiefly valuable in helping buyers to achieve greater confidence and a saving of time in their purchases of goods and services.

All four of these devices work in essentially the same way. The state creates an incentive for individuals and firms to do more of certain things by granting them limited rights in intangibles -- in ideas, expressions of ideas and the goodwill of enterprises.

It is sometimes argued that in doing this, the state is not merely granting rights for incentive purposes, but is instead defining, validating and protecting fundamental rights that were in some sense already there. The character of the rights involved in intellectual and industrial property is not an easy

question, and countries have differed in the legal approaches that they have taken to it. The *economic* nature of these rights is discussed somewhat further in Appendix A. Suffice it to say here that the "fundamental-rights" view of intellectual and industrial property is difficult to square with the history of these laws in Britain and Canada (see notably the discussion of the origins of British and Canadian copyright law at the beginning of Chapter 7), or with the scope of their application in almost any country where they exist. For example, patent, copyright and design protection has always been specifically limited in time, as would presumably not be the case if the fundamental-rights view was carried as far as its own logic and internal consistency would allow it to be taken. Again, many highly important areas of knowledge production and processing have always been excluded from the grant of rights. No patent was ever issued, for instance, on Einstein's theory of relativity or on the General Motors divisional system of large-scale business organization, although each in its sphere was an epoch-making discovery.

From a fundamental-rights viewpoint and possibly other viewpoints, this may all look exceedingly messy and inconsistent; but when the incentive viewpoint is adopted, much of the seeming inconsistency drops away. What society appears to do is to use the policy instrument of intellectual and industrial property rights in certain parts only of the total information system -- in parts where there is widely agreed to be a serious problem of underproduction and underprocessing of knowledge, and where this particular kind of incentive, by itself or in association with others, seems likely to be an appropriate means of improving the situation.

The general character of the right granted under all intellectual and industrial property legislation is exemplified by the following passage from the Patent Act:

> "Every patent granted under this Act shall ... subject to the conditions ... prescribed, grant to the patentee and his legal representatives for the term therein mentioned, from the granting of the same, the exclusive right, privilege and liberty of making,

> constructing, using and vending to others to be used the said invention, subject to adjudication in respect thereof before any court of competent jurisdiction."[1]

This is, potentially, a valuable right. If the patented knowledge is incorporated into an ultimately successful innovative process, the right is likely to bring to its holder a greater stream of revenue than he would receive without this legal protection. The patent system thus provides stronger incentives for people to engage in certain knowledge-creating and innovative pursuits, and for more of the economy's real resources to be switched into these pursuits from other fields.

But why is this deliberate policy move to shift resources necessary? What is the problem in the total information system that would otherwise tend to produce, in this sector, underinvestment in knowledge production and in the later follow-up steps of the innovative process? The answer can best be expressed in terms of risk. From the standpoint of a private individual or firm contemplating a commitment of resources to innovation, that commitment can seem quite risky -- more risky, in many instances, than if the commitment could somehow be shouldered and the risks pooled by society as a whole. One of the risks to be faced is simply that of failure, the risk that substantial resources may be invested in an innovative project that fails to yield anything of value. Another important risk, and the one with which the patent system is most specifically adapted to deal, arises from the easy appropriability of information, which may deny to the would-be inventor and his associates the prospect of a sufficiently inviting return on their investment:

> " ...The basic problem is that, in the absence of the patent system, neither the producer of the invention nor any purchaser of it will typically have any means of excluding people who have made no payment from the commercial use of the invention. The problem is obvious when an inventor is attempting to sell his invention. The potential buyer cannot be expected to pay for an invention

---

[1]Extract from the Patent Act, Section 46.

> before he knows what it is. But when he has sufficient information to name a price, he will often have obtained the essential knowledge without paying for it.
>
> "But the problem also occurs in a more subtle form. When new knowledge is used in production, it will often be possible to reproduce it at a much lower resource cost than was required to make the original discovery. New consumer goods can usually be copied without difficulty, and so can new machines. Employees who have relevant information can be hired away, and new chemicals and drugs can be analysed."[1]

The copyright system is a way of dealing with the same problem in another area. The author and publisher of a book or other work commit resources to the processing of knowledge into widely accessible form; but if neither copyright nor a substitute for it exists, and if copying technology permits other persons profitably to copy the book and make no contribution to the original costs of the author and first publisher, the latter may not consider the game worth the candle. Similar logic supports the laws protecting industrial designs and trademarks.

The amount of incentive provided to knowledge production and information processing by the laws of intellectual and industrial property, as compared with the situation in their absence, is not a measurable quantity. Clearly, however, it varies a great deal from case to case, depending on many factors. If an invention can easily be kept secret, patent protection will not have much effect on the incentive to produce it and may not indeed be sought. Much also hangs on the likely strength of demand for the projected product or process. If a process is peculiar to the needs of one firm, or if a new product is likely to enjoy only a modest market, patent

---

[1]B. V. Hindley, *The Economic Theory of Patents, Copyrights, and Registered Industrial Designs, op. cit.*, pp. 3-4.

protection may provide little extra incentive to go ahead. The case is obviously quite different, however, if at the end of the line are foreseen a booming demand and a cluster of envious competitors.

BENEFITS AND COSTS TO SOCIETY

Society, through government, normally provides incentives to private parties in the hope of receiving benefits, and this is true in the present instance. A better dynamic allocation of resources is the goal, with a larger proportion of productive factors flowing into certain kinds of knowledge production and processing and into associated innovative investments. But most incentive policies have significant social costs as well as benefits, and this too is clearly true here. All of the principal forms of intellectual and industrial property have long been recognized to have such costs, and good policy-making requires that these be taken into account along with the benefits. They should be borne in mind when deciding, firstly, whether a sector of the total information system stands in need of state-provided incentives, and secondly, if it does, what particular kinds of incentive would be most suitable.

The laws of intellectual and industrial property are really a kind of compromise in the face of a dilemma. Ideally, a total information system should work rapidly and efficaciously both on the learning and knowledge-producing side and on the side of distribution and use. Ideally, the moment a valuable invention is placed in a store of knowledge anywhere in Canada, it should be made fully available -- at least, to the extent justified when the cost of moving and relearning the knowledge by the most efficient available means is taken into account -- to every Canadian enterprise whose economic performance might be improved by it. A quick and wide spreading of benefits among manufacturers, consumers and others would then be assured. The problem is how to do this while preserving an acceptable rate of knowledge production. Intellectual and industrial property laws come down on the side of promoting knowledge production, while deliberately imposing some check on knowledge use (compared with what would happen in a wide-open, non-proprietary free-for-all) in order to provide more incentive at the production stage.

In a description of the benefits and costs to society of the patent system and other types of intellectual and industrial property, the benefits may be more easily summarized because they are more obvious. It is widely accepted that parts of the total information system do suffer from an underlying tendency towards underproduction. The provision of incentives can rectify this and the gains of more production can be readily perceived. That is, more of certain kinds of knowledge will be produced; more of certain kinds of information-processing will take place; more of certain kinds of innovation will occur. Greater numbers of new and better-designed products and processes and more book titles and films, etc., will appear. All this will tend to promote the achievement of a number of social goals.

But there is, inevitably, another side to the story, unfavourable to the attainment of social goals. The granting of limited monopoly rights has more than one kind of consequence. As already indicated, the incentive to knowledge production and information processing is achieved by means of a sacrifice on the distributional side. The higher returns provided to knowledge producers and processors and their innovative associates arise from higher prices to the users of the products involved (and therefore in smaller sales and output of them) than would prevail under other circumstances. Individually, each of the new books, films and other products will be scarcer and more expensive than it would be if some more efficient and less socially costly form of incentive could be brought into play.

There is a sense in which one can say that an optimally "efficient" law of intellectual and industrial property would be highly flexible, tailoring the term and other characteristics of each patent or other grant of right to the incentive needs of each recipient. More powerful incentives (and therefore more extensive rights) might be deemed necessary in some fields than in others. However, this would involve formidable administrative

difficulties and costs,[1] and it is probably no coincidence that while most countries' systems contain provisions for the modification of rights under certain circumstances (e.g. via compulsory licensing), they are not to any important extent "tailored" in the fashion described above. Where countries wish to favour particular areas of knowledge production and innovation, they normally use other methods.[2]

As things stand, the costs and uncertainties of incentives under intellectual and industrial property laws, including the difficulty of working out on average an appropriate set of limitations on the grant of exclusive rights, have led some informed observers to consider such drastic steps as the total abandonment of the patent system in favour of other incentive devices. We do not in this Report advocate the abandonment by Canada of patents or any of the other three classes of intellectual and industrial property. It seems to us that they have a useful role to play in the future, particularly if they can be more accurately aimed at the chief social and economic goals towards which they are in principle directed. We do, however, take into account, at appropriate points, their costs and their benefits, and the various available alternatives to them. Neither patents nor any other single incentive device should be regarded as sacred, for this will surely impede the achievement of a good mixture of policies.

---

[1] If one had all the information necessary to make such a system work, one would probably, in the process, have invented a new incentive system better than the patent system or any of the alternatives to it that have been suggested up to now. But the cost of obtaining that much information might well be prohibitive.

[2] For example, if a country wished to encourage innovations such as pollution-control devices, with strongly positive "external" effects on the quality of life, and if it also perhaps wished to discourage innovators from bringing forward devices with unresolved pollution and other "externality" problems, it would probably find that policies other than patent policy were the most effective means of achieving this end. Patents could conceivably be refused on "dirty" inventions, but it would probably be found that the polluting or anti-polluting properties of some inventions would be far from clear at the time of application for a patent.

TYPES OF INTELLECTUAL AND INDUSTRIAL PROPERTY

Up to this point, the four major types of intellectual and industrial property have for the most part been treated as one, with emphasis falling on their characteristics in common. For purposes of further discussion, it is now useful to outline briefly some of their peculiar characteristics and differences.

Patents

In Canada, a patent grants the right to control the use of "any new and useful art, process, machine, manufacture or composition of matter". It is not granted for products with an illicit intent nor for scientific or abstract principles.

In Canada, the United States and the Philippines, the right goes initially to the originator of the invention; in other countries, to the first person to file an application subject to contest by the first to invent. The right may subsequently be sold or licensed for use by one or by several other persons at the same time. It is good only for a limited term -- in Canada for 17 years. Other limitations on the right are or may be imposed; for example, the patentee may in certain circumstances be required to license his right to others.

A patent is not granted automatically. It must be the subject of a formal application to the government. This is followed by an examination and a search for "prior art", to ensure that the invention is both new and unobvious.

In order to obtain a patent on an invention, a person must normally make a subsequent public disclosure of the invention. There is no reason in principle why disclosure requirements cannot be attached to other incentive devices such as tax concessions and subsidies, but in the case of patents the requirement is a built-in condition, and to this extent may be considered distinctive. Where patent disclosure is reasonably full and informative, therefore, and where the invention might otherwise have been kept secret for a considerable time, the original incentive effect on knowledge production and innovative activity may be somewhat enhanced by a broader information effect. Technological knowledge will be

spread to more storage points in the system; the new ideas thus propagated may lead to others; and through licensing or other procedures there may be a building-out from the invention of additional innovative chains that the original inventor and his associates did not foresee or could not themselves undertake. Also, knowledge of the new invention may keep people from wasting resources in reinventing it, although they may instead be induced to put resources into "inventing around" it. This may sometimes produce worthwhile results from society's point of view, but it can also be wasteful as compared with using the same resources to produce something else.

The patent system encourages disclosure of inventions but does not guarantee it. Where secrecy can be made effective, an inventor may prefer its protection to that furnished by the patent system and may therefore neither patent nor disclose. Also, in some areas of invention such as complex chemical processes, even the most stringent of patent disclosure requirements, faithfully complied with, may be unable to elicit more than a fraction of the know-how necessary to put the process efficiently to work.

Registered Industrial Designs

On the face of it, a registered industrial design in Canada seems very similar to a patent, but there are some important differences. Formal application must be made, and if this is successful an exclusive right is granted for a term of 5 years, which may under certain circumstances be extended for no more than another 5 years. This makes the maximum term of protection 10 years by comparison with 17 years for a patent. The right may be sold, or use of the design by others may be authorized. A degree of formal disclosure takes place inasmuch as a description of the design is placed in a public register, but in most cases this is probably less important than disclosure by way of the appearance of the product in the market place.

Unlike a patentable invention, a registrable industrial design is not defined in the Canadian legislation. To be registrable in Canada and to be subsequently capable of sustaining a successful legal action against infringement, it appears that an industrial design must have the quality of "newness" as related to previous registrations. In general, the design would

appear to consist, from a legal point of view, of the style of a product -- of the external appearance that differentiates one producer's version of a product from another's. The Canadian jurisprudence in this area has exhibited a concern with shape, configuration, pattern and ornament, provided that these do not amount simply to the "inevitable or necessary shape" of the article.

Copyrights

The two chief respects in which copyrights differ from patents and industrial designs have to do with procedures for obtaining protection and the nature of the thing protected. Copyright protection is obtainable without any application to government or other formality. It attaches automatically upon the creation of an original literary, artistic, dramatic, or musical work.

What copyright protects is widely misunderstood. It does not, in principle, protect ideas as such. People have always been legally able to abstract ideas from copyrighted works, so long as they do not reproduce the works in their original forms of expression beyond the limits of "fair dealing". In general, copyright has been held to protect only the *form* in which ideas are expressed, whether this form be words on paper, a photographic image on film, sounds registered on a phonograph record or magnetic tape, or whatever. The distinction is a tricky one, but the copyright incentive seems to try to encourage not so much the original conception of ideas as their arrangement into certain communicable forms. It is concerned less with original learning and knowledge production than with a somewhat later stage of processing, although many an author or other first holder of copyright will have operated extensively at earlier stages as well. It is of course common for the first holder of a copyright to assign all or part of his right to someone else, such as a publisher.

Copyright in Canada applies to "every original literary, dramatic, musical and artistic work". The work must embody "a certain indefinable minimum of expense, labour, skill, judgment or imagination, expressed in a material or concrete form which is more or less permanent

and capable of identification".[1] The "material or concrete" form is an important proviso, since, while it covers such things as movie film, it has been held by the courts to exclude live television performances where no recording of the performance takes place *before* the broadcast. The law also protects against unauthorized public performance of a work as well as reproduction of any substantial part of a work in any material form whatsoever. Also covered is a variety of conversions of works, whether by translation into another language or by conversion into another medium, such as when a novel is made into a radio broadcast.

As with patents, the term of copyrights is limited. However, its length depends on the type of work. For written works, the term is life of the author plus 50 years; for sound recordings and photographs, the term is 50 years from the time the original plate or negative is made. The law contains various specific exemptions from copyright, the most important of which is the "fair dealing" provision under which such practices as reproducing portions of a work verbatim for purposes of private research or of newspaper or magazine review may be permitted.

Trademarks

A trademark is a symbol attached to a good or service that adds, or in some cases creates, a distinctive quality to the product by associating it in the buyer's mind with some manufacturer or distributor and perhaps with some features of product performance. Governmental registration of trademarks originally appears to have arisen in an attempt to repress the business practice known as "passing off", or misrepresentation, whereby the established reputation of one producer was often effectively appropriated by another. Formal registration and stronger legal protection of trademarks make it more profitable for the owner thereof to commit resources to the delivery, on a consistent and continuing basis, of goods and services found satisfactory by buyers. In this fashion, intangible but valuable goodwill, capable of generating a stream of future income, is built up.

---

[1]Bruce C. McDonald, *The Challenge of Change: Copyright in Context*, Economic Council of Canada background study (forthcoming).

Like other forms of intellectual and industrial property, trademark rights are limited in certain ways and are subject to abuse provisions. They may in certain circumstances be expunged. Unlike patents, copyrights and registered industrial designs, however, they are not subject to any specific time limit, although periodic renewal of registration is necessary.

As in the other three cases, rights in Canadian trademarks are transferable. This has a special significance for trademarks, given the associations which they create in buyers' minds about source or origin.

NATIONAL AND INTERNATIONAL ASPECTS

Before launching into a more detailed consideration of Canada's laws of intellectual and industrial property, it is useful to recall again that these laws link on to those of other countries, via international treaties and conventions. There are international impacts to be taken into account, with some associated inhibitions on domestic freedom of action. Much of Canadian policy-making in this area involves the development of official Canadian attitudes towards international agreements to which this country is a party, and towards proposals for changes in those agreements.

Most countries use a larger proportion of the total "internationally available" supply of information than they generate. Partly as a reflection of this fact, some countries, though by no means all, are net users of that portion of the total supply which is covered by laws of intellectual and industrial property, and which consequently carries (except where barter-type arrangements are in force, as within some international companies) specific user charges in the form of royalties, licence fees and the like. In terms of such payments, the United States and some other countries are "net exporters". Canada, in significant contrast, is a heavy net importer, paying more out to foreigners on this account than it takes in. Canada's situation and interests in this sphere are in some ways closer to those of the developing countries than to those of countries like Britain, France and the United States.

How should policy take account of this? The best overall strategy would appear to be along broad lines already suggested. That is, policy formulation should start with a careful and cool-headed assessment of the costs and benefits for Canada of *all* the available and relevant incentive devices. Some general notion should be developed of what would be an optimal mixture of incentive policies on a worldwide basis from Canada's point of view. There should then be a realistic appraisal of the extent to which progress towards such a mixture might be promoted by Canadian domestic action and international negotiation, and of what other options might be tried if progress along these lines proves difficult.

If policy is developed in this fashion, a hasty deployment of every available means of increasing Canadian self-reliance in the field of information and of reducing the balance of net outpayments to foreigners will almost certainly show up as self-defeating. To begin with, Canadians are citizens of the world; major artistic, scientific and technological advances in any country are triumphs for them too, and they have an interest in maintaining appropriate incentives to knowledge production and processing the world over. Further than this, the transmission of information internationally has the usual complex fertilizing and feedback effects. The readiest possible access to the best that has been thought, expressed and invented abroad is vital to Canada -- not simply as a user of knowledge, but also as a producer of it. A policy that seriously endangered this access would not be rational.

At the same time and in part for the same reason, however, Canadians must be aware of their interest in keeping the cost of this access as low as possible. This will mean that Canada, as a net importer of intellectual and industrial property, will have interests different from those of net exporters. Canada is likely, for instance, to have an interest in adhering to international conventions at less than the maximum level of protection available to member countries. Canada may well wish to retain its freedom to maintain patent, copyright and design protection on a shorter-term and less-extensive basis than other countries, and to issue compulsory licences more often than they do.

It is also obviously desirable that policy regarding intellectual and industrial property should be consistent with other policies affecting Canadian international trade and related strategies of economic development. As tariff barriers are reduced internationally, the object of the exercise would be defeated to the extent that nontariff barriers based on patents, copyrights or trademarks were not removed. By the same token the object would be defeated if higher nontariff barriers merely replaced tariff barriers. It is also important that the "working provisions" of the Patent Act and other features of intellectual and industrial law, conceived in an era when a broadly diffused pattern of Canadian manufacturing was taken as the desideratum, should be brought more into accord with the increasingly accepted view today that the future of Canadian secondary industry lies in the direction of greater scale and specialization of production.[1]

---

[1]Economic Council of Canada, "Scale and Specialization in Manufacturing", *Fourth Annual Review*, Ottawa, Queen's Printer, 1967, pp. 145-172.

CHAPTER 4

PATENTS IN A CANADIAN PERSPECTIVE

This chapter presents some of the more important issues surrounding the patent system as it operates in the modern Canadian environment.[1] The chapter begins by briefly recapitulating the economic and social objectives which patent policy is designed to serve. After a review of the international patent treaty and the world patent system, it goes on to describe the major provisions of the present Canadian Patent Act, noting in the course of this discussion some of the proposals put forward by the [Ilsley] Royal Commission in its *Report on Patents of Invention* published in 1960. In order to arrive at some evaluations of the extent to which the objectives of the patent system are now being achieved so that the Canadian public secures the maximum possible benefits in relation to the social costs entailed, some of the results of a sample questionnaire survey by the Economic Council of the patents issued by the Canadian Patent Office in 1957, 1960 and 1963 are presented. The results of this analysis and of other available evidence are then summarized and assessed.

---

[1] As a background to this chapter and Chapter 5, a number of studies of Canadian and other patent systems were prepared. Of these studies, the three most extensive were: O. J. Firestone (Professor of Economics at the University of Ottawa), *Economic Implications of Patents* (to be published by the University of Ottawa Press); B. V. Hindley (Lecturer in Economics at the London School of Economics and Political Science and Visiting Professor at Queen's University), *The Economic Theory of Patents, Copyrights, and Registered Industrial Designs, op. cit.*; A. H. Wilson (Science Council of Canada, formerly of the Economic Council of Canada), *Background to Invention*, Science Council of Canada Special Study No. 11, Ottawa, Queen's Printer, 1970.

OBJECTIVES OF THE PATENT SYSTEM

The economic rationale of patents and the nature of the social benefits and costs associated with them were discussed in the previous chapter, and only a brief review is necessary here. A patent system, like other kinds of intellectual and industrial property, is one of a variety of incentive devices used by governments to correct the situation in sectors of the economy where there is judged to be a tendency towards undercommitment of resources to knowledge production and innovation. By granting patents, the State seeks to provide a basis for those who incur the once-and-for-all costs involved in the invention and introduction of successful new products and processes to secure a greater return for their efforts than they would otherwise obtain. They and others will then be encouraged to make more such efforts in the future. The benefit to society will consist of a greater flow to the market of new products and more efficiently produced old products than would otherwise be forthcoming.

At the same time, all patent systems involve various costs as well as benefits, more or less widely distributed among producers of patented products, users of patented processes, consumers, and members of the economy at large. The overall social costs of the system consist of the resources used to administer it and any resource misallocation which it may cause -- notably resource misallocation arising from its inherent characteristic of limited monopoly.

The primary incentive effect of the patent system goes to inventors and their associates in the innovative process, who, having been offered a larger prize for success than they might obtain if their newly developed knowledge was easily appropriable by others without payment, are thereby induced to commit more resources to innovative activities. In addition, however, some secondary incentive effects on knowledge production and innovation are also often attributed to the patent system and warrant examination here. These secondary effects are principally three:

(1) the provision of a market place for new technology;

(2) the provision of a medium for the dissemination of technical knowledge;

(3) the provision of a basis for the development of export markets and expansion of Canadian business into foreign countries.

Elaborating slightly on the primary incentive effect, we should note the argument by some observers that the need for such incentives (and consequently the need for a "strong" patent system) has decreased with the rise in the number and proportion of patentable inventions coming from within the corporate structure rather than from independent inventors. It is contended that large corporations, especially, have less need of patent protection as a basis for invention and innovation.

Table 4-1

PATENTS ISSUED TO RESIDENTS OF CANADA
SELECTED YEARS 1908-68

	Percentage of Patents Issued to:	
	Independent Inventors	Corporations
1908	97.3	2.7
1918	93.2	6.8
1928	82.2	17.8
1938	82.5	17.5
1948	65.0	35.0
1958	50.0	50.0
1968	36.5	63.5

Source: Estimates based on data in the *Canadian Patent Office Record* for the years noted.

The Canadian evidence in Table 4-1 above indicates a strong rise in the corporate proportion of patented inventions, probably reflecting in part a technological environment in which the discovery of inventions increasingly requires expensive equipment and well-organized groups of researchers. It cannot necessarily be inferred from this, however, that the need for the patent type of incentive has decreased. In the first place, the independent inventor remains numerically important and may be more important still in terms of ability to generate highly original "breakthrough" inventions that sometimes elude the more unwieldy research battalions of large corporations.[1] A well-known British study, which found that the original inventive contribution of individuals and other small-scale operators was still surprisingly large, concluded,

> "So long as the survival of the individual inventor is not utterly despaired of ... and so long as nothing better can be suggested for the purpose, there is a very strong case for the retention of the patent system."[2]

---

[1]Among recent inventions attributed to independent inventors and small organizations are xerography, DDT, insulin, penicillin, titanium, terylene/dacron, the zipper, the automatic transmission, the jet engine, the FM radio, the helicopter, air conditioning, the Polaroid Land camera and the oxygen steelmaking process. See Economic Council of Canada, *Interim Report on Competition Policy*, *op. cit.*, p. 92; also, U.S. Department of Commerce, Panel on Invention and Innovation, *Technological Innovation: Its Environment and Management*, Washington, G.P.O., 1967, p. 18.

[2]John Jewkes, David Sawers, Richard Stillerman, *The Sources of Invention*, London, Macmillan & Co., 1958, p. 251. Evidence from a study of the farm machinery industry in North America has indicated that in spite of oligopolistic sectors and large international firms, the small individual inventor still does play a noteworthy role in the discovery of patentable inventions. See A. G. Vicas, *Research and Development in the Farm Machinery Industry*, Royal Commission on Farm Machinery, Study No. 8, Ottawa, Queen's Printer, 1969, pp. 30-33.

As for the incentive needs of corporations, the evidence here is mixed. One study has indicated that while corporations often do not attach great importance to patent protection in technological areas where they are already well ensconced, they set greater store by it when they are moving into newer and less familiar areas.[1]

Turning now to secondary incentive effects, the patent system indeed appears capable of providing a market place for new technology and of disseminating new technical knowledge, because of its creation of more readily marketable industrial property coupled with built-in disclosure. As was explained in Chapter 3, the disclosure feature is difficult to evaluate because it can in some circumstances give rise to minor "inventing around" and other socially wasteful practices. It seems unlikely, however, that the final balance is socially negative, and there is probably some net social gain.

Finally, patents can also play a role in the growth of export markets. A firm can file applications for patents on the same invention in as many countries as seem likely to offer the prospect of profitable sales, subject of course to conditions laid down in the various national patent laws. Particularly where export markets are of such size that they affect investment decisions, and where the new knowledge underlying the product or process can be imitated at substantially lower cost, the granting of patents by foreign countries may provide the essential degree of further stimulation required to induce particular types of innovation. But this cuts both ways, since Canada also grants patents to foreigners and is dependent on imports for many of its requirements. The use of the patent as an effective blockade against economic production in any one country and, conversely, its ability to shelter domestic production from import competition, may pose serious problems for efficient resource use. It is in Canada's national interest to ensure that the payments made to foreigners for the use of their patented ideas are no larger than the benefits received by Canadians, and it is thus very important that the full implications of this marketing dimension of the patent system be noted and due account taken of it. This

---

[1] Frederick M. Scherer, *et al.*, *Patents and the Corporation*, Bedford, Mass., Patents and the Corporation, 1959, p. 150.

aspect is, indeed, the major neglected characteristic of the Canadian patent system, and research into it has weighed heavily in arriving at the policy assessments and proposals to be presented later.

THE INTERNATIONAL PATENT SYSTEM

Canada became a member of the International Convention for the Protection of Industrial Property in 1883 when Britain joined. This agreement involves several important obligations. Canada must treat applicants of all member nationalities equally, allow a one-year prior disclosure of an invention when this is done by a patent application elsewhere, not let any foreign declarations of invalidity affect the validity of Canadian patents, not provide for revocation of patents because the patentee supplies the market with imports, and not issue compulsory licences to remedy any practices that Canada considers "abuses" until three years have elapsed from the time of patent issuance. There are also some procedural obligations designed to facilitate administration. None of these provisions will inhibit the improvements in the Canadian patent system to be recommended in the next chapter because the treaty permits extensive scope for national policies to differ from each other.

The International Convention of 1883 did not come about easily. During the growth of the free-trade movement in the middle of the nineteenth century, the market control aspects of the patent system had become clear to many observers, and the signing of the treaty took place only after vigorous debate. Three basic views of the patent system were in contention: the anti-patent view, the view of the patent as a "moral" property right, and the view of the patent as an instrument of public policy. Major protagonists in the debate were Germany, the United States and Britain. For a while Germany supported the anti-patent view, but growing pressures from pro-patent groups in that country led to a movement away from this position. (The Netherlands actually did abandon the patent system for the period from 1869 to 1912.) The U.S. negotiating position was largely based on the property-rights view, while the larger European nations other than Germany tended to regard the patent as a policy instrument -- notably as an instrument for the protection of domestic production based on inventions from any source against foreign competition. Eventually, a view prevailed that *some* sort

of international patent system was helpful to economic growth and development, and the treaty was signed.

The prolonged debate left its mark on the Convention, however. There were many loose ends. Even after the main principles had been agreed, the details of degrees of national freedom to adjust patenting conditions to suit national policies kept the negotiators busy. Even today, complete intercountry harmonization has not yet been recognized as a viable goal for treaty purposes. For instance, not all countries have the same patent term, and it is not expected that they will have in the near future.

One recent step towards greater international co-ordination of patenting is contained in the Patent Co-operation Treaty of 1970, where it is recognized that resources are wasted if every patent-granting country "searches for novelty" before issuing its patent on a particular invention, and where procedures are set up to work towards a group of common searching offices. But while this is generally viewed as a welcome development, it by no means necessarily foreshadows moves to inhibit each country's continuing right to grant, or not grant, a particular patent and to keep its own terms and procedural rules.

In the one major economic study that has been made of the international patent system, Edith Penrose argues that to say simply that international patenting arrangements promote technological progress on a world-wide basis leaves an important part of the story untold.[1] In her view, such gains as may ensue in terms of increased innovation in an international context are outweighed by heavy social costs -- not only costs involving higher prices and royalty payments, but also costs arising from inefficient worldwide resource use as a result of restrictions on the use of new techniques and of the extension of monopoly pricing power through international patent cartels. She suggests that these social costs could be reduced, and that the most effective and flexible method of reducing the costs to any one country of foreign patenting is the encouragement of licensing.

---

[1]E. T. Penrose, *The Economics of the International Patent System*, Baltimore, Johns Hopkins Press, 1951, p. 233.

CANADA'S ROLE IN THE WORLD PATENT SYSTEM

Table 4-2 ranks the 10 members of the "Paris Union" (the International Patent Convention) having the largest volume of patents in effect at the end of 1967. Canada places third in this list, following the United States and France but ahead of Britain.

Neither the volume of patents outstanding nor the volume of patents issued gives a very sound impression of the extent to which actual inventive and innovative activities are carried on in many of the countries shown. Even when the award of patent rights to residents of other countries is considered, the volume of patents issued to nationals does not necessarily equal the number of useful new or improved products they introduce on the market. Inventors may opt for secrecy or alternatively may choose to disclose freely their new developments to society. In addition, differences between countries in defining patentability and in setting out disclosure requirements can create significant differences in the ease with which patents are awarded in one country as opposed to another. Nor do patent statistics provide a sound measure of domestic technological standards, since the patent is not always in use in the country that grants it. Therefore, this data must be interpreted carefully.

The large number of Canadian patents outstanding, relative to other countries listed in Table 4-2, is in part explained by intercountry differences in factors outside the patent system, such as the relative industrial maturity of economies, the nature of the industries in operation in different countries, and the influence of tariff policies on the ability of foreign industries to compete in a domestic market. But differences in the way patent systems operate are also contributing factors. This is particularly true of policies with regard to renewal fees and differences in the degree of technological "novelty" required to obtain a patent in one country as compared with another. Renewal fees imposed periodically during the life of a patent can serve to clear the patent register of "deadwood" and so reduce the volume outstanding by removing patents which their owners no longer consider valuable. Of the members of the International Convention, only the United States, Canada, Cyprus and perhaps one or two other small countries do not impose renewal fees -- a fact which inflates the relative position of these countries. In addition, some Canadian companies have indicated that it is much more difficult to obtain a patent in countries such as the United States, Germany and Japan than it is in Canada because of stricter procedures for granting patents.

Table 4-2

SELECTED PATENT STATISTICS FOR MAJOR INDUSTRIAL COUNTRIES, 1967

	Grants of Patents to:					Patents in Effect at End of 1967
	Number			Percentage		
	Nationals	Foreigners	Total	Nationals	Foreigners	
			Patents			
United States	51,274	14,378	65,652	78.1	21.9	824,233
France	15,246	31,749	46,995	32.4	67.6	336,446
Canada	1,263	24,573	25,836	4.9	95.1	304,360
Britain	n.a.	n.a.	38,999	n.a.	n.a.	209,166
Japan	13,877	6,896	20,773	66.8	33.2	161,265
Germany	11,520	8,351	19,871	58.0	42.0	127,652
Belgium	1,586	15,047	16,633	9.5	90.5	118,238
Switzerland	5,388	16,462	21,850	24.7	75.3	84,620
Spain	n.a.	n.a.	11,281	n.a.	n.a.	63,000
Austria	1,188	6,896	8,084	14.7	85.3	49,888
			Utility Models: Registrations Granted to[1]			
Japan	20,601	721	21,322	96.6	3.4	174,679
Germany	20,948	2,400	23,348	89.7	10.3	92,580
Spain	n.a.	n.a.	6,609	n.a.	n.a.	53,840

[1]"Utility models" or "petty patents" are a special type of device used in a few countries. They have a shorter term than a regular patent because they are not given an examination for novelty of the invention. If they are included in the totals, the order of the countries will change.

Source: *Industrial Property -- Monthly Review of the United International Bureau for the Protection of Intellectual Property*, no. 12, Geneva, December 1968.

The *use* of any particular nation's patent system by foreigners will depend primarily on the importance of that national market, but secondarily on various factors such as the ease of obtaining a patent in that market. The *effect* of this foreign use of a national system depends on still other factors. The net effect on Canada of a Canadian patent held by a foreigner depends upon whether innovation takes place, where it takes place, the effect which the patent has on the price of the commodity, and the resulting effects which trade in the commodity has on the overall pattern of Canadian trade. The heavy use of the Canadian patent system by foreigners -- a proportionally heavier use than foreigners make of any other patent system in the world -- at least raises the question as to whether on balance the Canadian patent system is offering excessive returns to patent-holders.

The fact that 19 out of every 20 patents issued in Canada are granted to foreign applicants is shown in Table 4-3. The suggestion frequently advanced that Canada's patent system should necessarily be as "strong" as those of other countries does not appear to be a logical interpretation of the national interest. It could more logically be argued that it is in Canada's self-interest to grant only enough protection as will ensure that useful new products and processes will be introduced to the Canadian market.

Table 4-3

PATENTS ISSUED BY THE CANADIAN PATENT OFFICE
BY COUNTRY OF RESIDENCE OF THE INVENTOR

Year Ending March 31	Total Number	Percentage Issued to Residents of: Canada	United States	Other Foreign
1950	8,507	7.7	74.3	18.0
1955	10,274	5.5	75.1	19.4
1960	21,985	5.5	68.7	25.8
1961	21,988	5.7	68.2	26.1
1962	21,631	5.6	68.9	25.5
1963	21,200	5.6	68.0	26.4
1964	23,205	4.6	67.5	27.9
1965	23,451	4.8	68.0	27.2
1966	24,241	4.7	67.1	28.2
1967	24,417	5.0	68.0	27.0
1968	25,806	4.9	68.1	27.0
1969	27,683	5.2	66.9	27.9

Source: Annual Reports of the Commissioner of Patents for the relevant years.

HISTORY AND ADMINISTRATION OF THE CANADIAN PATENT SYSTEM

The patent system in Canada had its beginnings in 1823 when Lower Canada introduced an Act modeled for the most part on the British Statute of Monopolies of 1624. Following Confederation, this legislation and similar statutes which had been passed by other provinces were superseded by the Patent Act of 1869. This Act introduced into what had previously been an Act modeled entirely on British law, some elements of American patent policy, chiefly of a technical and administrative nature. One of its original features was the introduction of the so-called "working provisions", designed to ensure that a patented invention would be manufactured in Canada. The Act provided that a patent would be revoked if the patentee did not manufacture his invention within three years from the date the patent was granted. Thereafter the patent could be voided if the invention "were not continuously manufactured in Canada and made available at a reasonable price", or if the patented invention was imported after 18 months from the patent date. In 1872 the three-year period of grace for working the invention was reduced to two years and the importation restriction was changed to one year.

After a series of minor amendments, a new Patent Act was passed in 1923, incorporating in the statute some of the obligations which Canada had assumed when she formally adhered to the International Convention for the Protection of Industrial Property. The 1923 Act contained the first mention of the special provisions relating to patents on food and medicine and to inventions made by public servants which appear in the legislation in force today. The next and most recent general revision in 1935 contained a new provision which attempted to strengthen the objective of working the patented invention in Canada on fair and reasonable terms. Six potential "abuses" were listed which, if proven, would permit either the revocation of the patent, or alternately the grant of compulsory licences, to a person anxious to make use of the patented invention. In 1954, the Royal Commission on Patents, Copyright, Trade Marks and Industrial Designs (hereafter referred to as the Ilsley Commission) was appointed. One of the tasks given to this Commission was to undertake a thorough study of the Canadian Patent Act with a view to determining whether it "affords reasonable incentive to the discovery of inventions ... in a manner and on terms appropriate to safeguarding the public

interest...." However, most of the Commission's recommendations were not incorporated in the legislation, and the Act of 1935 is today largely unchanged, despite the vast changes which have taken place in the economy in the last 35 years.

This very brief history of the development of the Canadian patent system provides some background to the more detailed description of the law as it applies today.[1] But it also should be noted that the heritage of patent policy bestowed on Canada by Britain and the United States -- the two countries most advanced in technological capabilities and possessing large populations from which to draw for innovative talent -- holds the danger that the patent system which has evolved may not be the one most suited to the different Canadian environment.

The Patent Act is now administered by the Patent Office in the Department of Consumer and Corporate Affairs, headed by the Commissioner of Patents and employing about 400 persons. About half the staff are patent examiners whose job it is to examine patent applications in order to establish not only that they conform to the requirements of the Patent Act as to the form of the application, but also that the new idea for which a patent is requested is novel and useful, represents an inventive step, and refers to subject matter that is patentable. The requirement that the invention possess utility means that it must be useful, and that it can in fact do what the applicant claims if it is used by a competent person in the manner set out in the application. The invention must be new throughout the world; it must not have been the subject matter of any patent application or publication more than two years before the application is filed in Canada, nor in public use or on sale in Canada more than two years prior to filing. These examiners are professional people with training in the relevant technologies. The bulk of the time spent by the examiners processing patent applications is taken up with searching patents issued by the Patent Office of Canada in

---

[1]Those interested in a more extensive discussion should refer to Harold G. Fox, *The Canadian Law and Practice Relating to Letters Patent for Inventions*, 4th ed., Toronto, The Carswell Company Limited, 1969.

order to establish novelty. Sometimes, but not always, the search includes those countries whose applications are on file in the Patent Office library.[1]

In the fiscal year ended March 31, 1970, the Patent Office received 31,360 applications, of which 25,874 claimed priority privileges related to the filing date under the International Convention. In that year 28,964 patents were issued. Over the past few years, the Patent Office has succeeded in reducing the average length of time that elapses between the filing of the application and the granting of the patent from between three to four years to about two years. As of January 1, 1970, the number of unapproved applications in progress stood at 65,500. Revenues received by the Patent Office from fees for all of their activities amounted to $5,195,126 in the last fiscal year, sufficient to cover salaries and other administrative costs although not overhead expenses.[2]

There are, of course, costs to the person applying for a patent: an official basic application fee of $50, subsequent fees for other steps in the patenting process, the internal costs of preparing the application, and the legal costs of patent attorneys. These can total anywhere from about $400 to over $2,000. The average amount is about $1,000 per filing.[3] These costs will also expand for each additional country in which a patent is applied for, with these varying according to each nation's fee schedule and legal requirements. If, however, there are serious legal contestations of the validity of a patent, the costs of these may in some instances be many times the cost of a straight application for a patent.

---

[1]The library now contains copies of patents issued by the following countries from the dates given: Britain, 1617; United States, 1836; France, 1902; Italy, 1925; Australia, 1926; Sweden, 1947; the Netherlands, 1948; Switzerland, 1949; Austria, 1949; Belgium, 1950; Pakistan, 1959; Egypt, 1960; Germany, 1962; Finland, 1965.

[2]Fees are payable at several stages of patent processing: upon application, upon issuance, for registration of assignment, for reinstating lapsed applications, and for each of the major steps necessary in the complex administration of the system. Also patent agents pay an annual fee to remain eligible to operate as such.

[3]A. H. Wilson, *op. cit.*, p. 27.

THE PATENT GRANT

Once a country has decided to adopt a patent system as a device to encourage the marketing of new products and the adoption of new processes, the decisions to be made are relatively few. Essentially they boil down to such issues as to whom and for what are patents to be granted and to what degree is the award of monopoly power to be restricted and the flow of revenues from the award encouraged or discouraged. In Canada, patents may be given for the invention of "any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter". Excluded specifically from this legislative definition are patents on illicit products and scientific or abstract principles.

In Canada, patents are awarded to the originator of the invention. This approach is adopted by only two other countries -- the United States and the Philippines. In all other countries, the patent is granted to the person who is the first to file an application. The British Act stipulates that the patent applicant who is first to file is considered to be the "true and first inventor", a term that is taken to include the person who is first to import the idea into Britain and file for a patent there.

The first-to-invent system is more open to conflicting claims than is the first-to-file approach. The difficulties of determining which of several claimants actually first invented involves the consideration of whether the claimants are in fact talking about the same invention or about two or more different inventions. Further difficulties arise, in many cases, about whether the exact date of invention should be taken as the proveable date of conception of the idea. When rival inventors apply, the Patent Commissioner declares a *conflict* and then proceeds to decide which applicant was the first to invent. The resolution of the conflict depends on the credibility of affidavits, on the determination of the date of any relevant developments in a foreign country, and on the disclosure of the nature of the invention contained in the patent application being disputed. The problem would appear greatest in new and complex fields in which much time may elapse between the original conception of the invention and the beginning of production of the new

or improved product. The number of conflict proceedings settled by the Commissioner in 1969 stood at 185; these conflicts involved over 500 patent applications. Conflicts pending as of July 1, 1970 totalled 359 and involved 988 applications.

The Ilsley Commission recommended that Canada should move to a first-to-file system in order to reduce the average length of time that elapses between the filing of the patent application and the granting of the patent, as well as to avoid the time-consuming and expensive conflict proceedings. In its brief to the Senate Special Committee on Science Policy, the Patent and Trade Mark Institute of Canada indicated that its members were virtually unanimous in endorsing this proposal. The United States is also considering a similar proposal advanced by the President's Commission on the Patent System which published in 1966 a list of recommendations for revisions to the U.S. patent system.[1]

Section 28(1) of the Canadian Patent Act stipulates that a patent will be granted only where the invention has not been known or used by anyone prior to its invention, nor described in any patent or in any publication printed in Canada or in any other country and not in public use or sale in Canada for more than two years prior to filing. Only the United States and Canada allow patents on inventions which have already been disclosed by the inventor. In all other countries, prior use or disclosure are grounds for disallowing the application, except that the requirement of the International Convention -- that nationals of any member country of the union be permitted to file applications in other member countries within 12 months after the first application is made -- is respected.

The Ilsley Commission suggested that the Act should be clarified to make it clear that the application must contain a full and accurate description of the invention and the best method of making and using it in terms which would enable someone skilled in the art to which it applies to reproduce it. The Commission also suggested that prior use of the invention should invalidate

---

[1]Report of the President's Commission on the Patent System, *To Promote the Progress of ... Useful Arts in an Age of Exploding Technology*, Washington, G.P.O., 1966, pp. 5-8.

a claim for a patent and that the public should have access to the new information contained in patent applications at an earlier date than is now possible. Under the Commission's proposal, all patent applications other than those claiming priority rights under the International Convention must be accompanied by a provisional specification to be followed in 12 months by a complete specification. Convention applications must be accompanied by a complete specification. The patent would not be granted until the publication of the complete specification, which would take place either 15 days after notice is given to the applicant that the patent will be allowed or one year after filing and regardless of whether or not the Commissioner has decided to allow the application, whichever is earlier. Under the present Act, all patent applications remain secret until such time as the patent is issued. The Commission's proposals were aimed at enhancing the information function of the patent system so that new ideas are fully and quickly made available to others, while at the same time allowing patent applicants sufficient time to complete their development work and revise the list of features for which novelty is being claimed. These provisions would effectively mean that prior use or disclosure would constitute a bar to the granting of the patent, and patent privileges would be extended to the person who is first to disclose a new invention to the public.

USE OF THE PATENT GRANT

The patent provides the owner with the right to allow only persons he chooses to produce or to sell the product. This broad power has been the subject of much of the frequent controversy over the patent system. Some critics have pointed out that patent-holders have at times interfered with the flow of international trade. Goods which would otherwise be imported into a country are kept out by the right of a patentee to permit the manufacturing and vending of his patented article only by persons he chooses to license. This power is very much akin to a tariff barrier with all the costs that such barriers may entail in terms of sheltering inefficient domestic production. It may be noted indeed that with the progressive lowering of tariffs by industrial countries in the postwar period, the importance of various nontariff barriers, including those arising out of national patent

systems, has become more visible. Furthermore, whereas a tariff may be a hurdle which some low-cost foreign producers succeed in jumping (or could jump if tariff-protected domestic prices rose beyond a certain level), a patent may impose an absolute wall against importation at any price. For just this reason, the extent to which privately erected patent barriers to international trade flows distort the use of resources is more difficult to judge than in the case of the more visible government-imposed tariffs.

On the other hand, many countries, including Canada, have regarded patent systems as one of the ways in which to assist the growth of secondary industry in the domestic economy. As noted earlier, patent laws in most countries require that, if a patent-holder is to retain his exclusive rights, he must work his patented invention in the country granting the patent. In Canada there may well be instances in which the protection provided by the patent system has resulted in production in Canada at costs that compare favourably with those of foreign producers. More troubling are those instances in which the costs do *not* compare favourably, and in which perhaps the only reason -- or at least an important reason -- for the establishment of production facilities in Canada is the requirement under the Patent Act that, if the patent-holder is to retain his exclusive rights, he must work his invention in Canada. Also troubling are those instances where no working does take place in Canada, but where the patent protection makes it possible for the imported article to be sold at a significantly higher price in Canada than is charged in other countries where patent protection exists.

The Council's questionnaire survey attempted to solicit some impressions as to the proportion of patented inventions that are worked. Working was deliberately defined in the questionnaire in a narrow context to mean manufacture of the major part of a patented product, not just the mere sale or assembly of a product produced in some other country. Almost half of Canadian patents are not worked at all, either in Canada or abroad. Various reasons can be surmised to account for this, including the possibilities that subsequent technological developments may have made a particular invention obsolete or that subsequent development work may have indicated that economic application of the invention would not be feasible.

Table 4-4 indicates that only 15 per cent of the patents granted in the three years covered by the survey have been worked in this country, while 48 per cent have been worked in other countries.

Table 4-4

PERCENTAGE OF CANADIAN PATENTS WORKED, BY CLASS OF OWNER[1]

Ownership Characteristics of Patentee	Percentage of Patents Worked in Canada[2]	Percentage of Patents Worked Abroad[2]
Held in Canada by:		
Canadian firms	50.7	32.2
U.S.-owned firms	34.3	40.8
U.K.-owned firms	37.7	2.7
Other foreign firms	17.3	26.4
Firms of unknown or uncertain ownership	53.6	14.5
Individuals and government	25.3	13.4
Group percentages	35.0	27.7
Held in United States by:		
Firms with subsidiaries in Canada	14.3	45.1
Firms without subsidiaries	15.5	64.7
Individuals	4.4	63.5
Group percentages	14.3	51.0
Held Elsewhere by:		
Firms with subsidiaries in Canada	8.7	31.9
Firms without subsidiaries in Canada	4.5	53.1
Individuals	7.7	76.9
Group percentages	5.7	49.6
Total -- percentages	15.0	47.8

[1]Based on a sample of the patents issued by the Canadian Patent Office in 1957, 1960 and 1963.

[2]Includes some patents that are worked both in Canada and abroad.

Source: Economic Council of Canada patent questionnaire survey.

The table highlights two factors which appear to play a significant role in explaining this difference -- ownership characteristics of the patent-holder, and the country in which the patent is owned. Canadian-owned firms work a much larger proportion of their patents in Canada than any other group. In the case of foreign-owned firms with subsidiaries in Canada, a higher proportion of patents is worked in this country in those instances where the Canadian subsidiary owns the patent than where the foreign parent is the holder.[1]

The available information does not provide answers about the extent to which the high percentage of patents held abroad that are not worked in Canada represent unfulfilled hopes or goals not achieved. One possible reason why foreign patent-holders incur the expense of obtaining a Canadian patent is because they hope to earn royalties by licensing others to work their patent. But if this hope is realistically entertained, it must be on a limited scale, for the questionnaire survey revealed that, of the number of patents issued in the three-year period and held abroad, only 12 per cent were licensed to Canadian firms. This is a slightly higher figure than for patents owned in Canada, where the proportion licensed was about 10 per cent. Licensing arrangements between foreign holders and related firms (defined as those in which the patent-holder owns at least 25 per cent of the stock) undoubtedly were a significant factor; related firms were reported to have worked two-thirds of those patents held abroad and worked in Canada.

---

[1]The 51 per cent ratio for working abroad by firms holding patents in the United States is in line with the behaviour of firms holding patents issued by the U.S. Patent Office. Frederick M. Scherer found that an average of 54 per cent of patent-holders covered in his 1956 survey did in fact put their patent to commercial use; the ratio was slightly higher for small firms than for large corporations. It should be noted, however, that Scherer's definition of working included "making or selling the patented invention in the production of goods and services, or making arrangements with a third party for the use or sale of the patented invention". See Frederick M. Scherer, *et al.*, *op. cit.*, p. 112.

Another possible reason for obtaining a Canadian patent is because the patent prevents others from using the invention in Canada or importing the patented product or the product produced with the patented process. Which of these two motives is paramount in the decision to patent depends on whether the potential for using the patent in Canada is high. In areas where the potential is limited, the motivation for securing a patent in Canada must be the estimated amount that can be sold in Canada. In these cases, Canada as a market, rather than Canada as a production location, is the reason for applying for a Canadian patent.

Unworked patents can sometimes be costly to society and sometimes beneficial. They may represent "blocking patents" that cluster around other patents in ways that prevent desirable competition from occurring. On the other hand, such unworked patents may be socially beneficial if they serve to warn potential users of some uneconomic technology. Working of a patent, especially domestic working, is not necessarily a goal that ought to be aimed at by a patent system. Ideally, one would like to eliminate from the register "blocking" and other undesirable unworked patents, while leaving in it those which discouraged uneconomic production.

COMPULSORY LICENCES

No patent system grants patent privileges without attaching some limitation. In Canada, the major qualification is based on the concept that these privileges can be abused in certain ways and that some remedy is needed to deal with such activities by patent-holders in order to achieve a better balance between social costs and benefits. These are set out in Section 67(2) of the Patent Act.

> "(2) The exclusive rights under a patent shall be deemed to have been abused in any of the following circumstances:
>
> (a) if the patented invention (being one capable of being worked within Canada) is not being worked within Canada on a commercial scale, and no satisfactory reason can be given for such non-working, but if an application is

presented to the Commissioner on this ground, and the Commissioner is of opinion that the time that has elapsed since the grant of the patent has by reason of the nature of the invention or for any other cause been insufficient to enable the invention to be worked within Canada on a commercial scale, the Commissioner may make and order adjourning the application for such period as will in his opinion be sufficient for that purpose;

(b) if the working of the invention within Canada on a commercial scale is being prevented or hindered by the importation from abroad of the patented article by the patentee or persons claiming under him, or by persons directly or indirectly purchasing from him, or by other persons against whom the patentee is not taking or has not taken any proceedings for infringement;

(c) if the demand for the patented article in Canada is not being met to an adequate extent and on reasonable terms;

(d) if, by reason of the refusal of the patentee to grant a licence or licences upon reasonable terms, the trade or industry of Canada or the trade of any person or class of persons trading in Canada, or the establishment of any new trade or industry in Canada, is prejudiced, and it is in the public interest that a licence or licences should be granted;

(e) if any trade or industry in Canada, or any person or class of persons engaged therein, is unfairly prejudiced by the conditions attached by the patentee, whether before or after the passing of this Act, to the purchase, hire, licence, or use of the patented article, or to the using or working of the patented process;

(f) if it is shown that the existence of the patent, being a patent for an invention relating to a process involving the use of materials not protected by the patent or for an invention relating to a substance produced by such a

> process, has been utilized by the patentee so as unfairly to prejudice in Canada the manufacture, use or sale of any such materials."

This list at first glance appears to be broad enough to encompass any activities of patent-holders which could potentially result in excessive costs to the economy as a whole. But in fact, the application of this section is restricted in its effectiveness by Section 67(3) which states:

> "(3) It is declared with relation to every paragraph of subsection (2) that, for the purpose of determining whether there has been any abuse of the exclusive rights under a patent, it shall be taken that patents for new inventions are granted not only to encourage invention but to secure that new inventions shall so far as possible be worked on a commercial scale in Canada without undue delay."

Thus the guiding principle on which considerations of the public interest as they relate to the patent system are based is that patents must be worked in Canada.

There are two remedies which the Commissioner of Patents is entitled to impose when he intervenes under Section 67. The first -- the revocation of the patent -- has never been invoked. The second remedy available under this section is compulsory licensing. Requests made by persons seeking a licence to produce the patented invention in Canada lead to hearings before the Patent Commissioner. Should he decide in favour of the applicant, the patent-owner or others opposed to the licence frequently appeal to the Exchequer Court. As a result, the average time taken to process a compulsory licence application is approximately two years. Such legal contests can be very expensive and the mere potential for them serves to discourage applications for compulsory licenses. The delay is further aggravated by the terms of the International Convention which require that three years must elapse between the time the patent is granted and the issuance of a compulsory licence.

The Act allows the Commissioner broad discretionary authority in setting the terms and conditions he may consider to be appropriately attached to a compulsory licence. When the public interest is deemed to be damaged because the patentee is supplying the Canadian market by

imports, the Commissioner may decide, regardless of cost considerations, to allow the licensee to shut out these foreign goods so that domestic production can be initiated. In setting the royalties that must be paid, the Commissioner is required by the Act to "secure the widest possible use of the invention in Canada consistent with the patentee deriving a reasonable advantage from his patent rights", to get for the patentee a reasonable return from the working of the invention by the licensee, and to equalize advantages among several licensees, taking into consideration any work done or expenditures made by previous licensees in the course of testing the commercial value of the invention or working it on a commercial scale. The resolution of these somewhat conflicting objectives presents the Commissioner with an extremely difficult weighing and balancing task. On the one hand, he is called upon to protect the patentee, while on the other he must have regard to the work done by any existing licensees. Significantly absent from the list of factors that must be considered is any specific reference to the public interest, apart from that of securing the commercial production of the invention in Canada -- an objective which, as already noted, may or may not improve public welfare.

In certain circumstances, an exclusive compulsory licence may be granted. The Act provides for the issuance of a single compulsory licence in situations in which the invention is not being worked on a commercial scale in Canada and in which sole occupancy of the field may be necessary to secure financing for the potential licensee to put the invention to work.

Table 4-5 tabulates the number of applications for compulsory licences received since 1935 under Section 67. In the period noted, from 1935 to October 1970, there was a total of only 53 applications, an average of about 1.5 per year. Even more striking is the fact that in the 35-year period only 11 applicants were successful in securing a licence.

Most of the major industrial countries, with the exception of the United States, have incorporated into their Patent Acts provisions for compulsory licensing. However, in the United States, under the antitrust laws, the courts can impose compulsory licensing in cases where competition has been restricted by actions taken under the umbrella of patent protection. The mere threat of anti-

trust action is believed to have resulted in many voluntary licensing arrangements. In Britain and Germany, additional special incentives have been implemented to induce more widespread voluntary licensing of the right to produce the patented invention. In both these countries, patent-owners who publicly allow their patents to be licensed by any and all comers, that is, declared "licences of right", are granted a substantial reduction in the amount of annual fees or taxes payable under the patent. In Britain a patentee whose patent is endorsed as a "licence of right" may apply to have the endorsation cancelled on payment of the full amount of taxes waived, while in Germany this endorsation is permanent. Some observers believe that this procedure has not been all that successful in encouraging licensing, alleging that many patents which are so endorsed, and on which lower fees are paid, frequently fail to arouse licensee interest in any event. Canada has provisions permitting compulsory licences in both its Patent Act and its Combines Investigation Act.

Table 4-5

APPLICATIONS FOR COMPULSORY LICENCES
UNDER SECTION 67

	Between 1935 and January 1970
Licences granted	11
Applications refused	9
Applications abandoned or withdrawn	32
Applications pending as at October 30, 1970	1
Total	53

Source: The Patent and Copyright Office, Department of Consumer and Corporate Affairs.

FOOD AND DRUG PATENTS

The Canadian patent system, in common with those of many other countries, has had a long history of affording special treatment to patents related to food and medicine as distinct from patents on other products. Section 41, the specifically relevant part of the Act, allows for patents on food or drugs only when directly associated with a claim for a patent on a chemical process.

Recent amendments to the Patent Act make more provision for the granting of compulsory licences on these products in an attempt to bring about a reduction in the price of drugs sold in Canada.[1] Licences for food patents are granted to manufacture the product; licences for medicine are granted either to manufacture or import the product. These licences are granted virtually as a matter of right by the Commissioner of Patents, unless he sees good reason to the contrary because he believes the granting of the particular licence will prejudice the public interest. The royalty rates under these licences are set by the Commissioner with the intention of making the food or medicine "available to the public at the lowest possible price consistent with giving to the inventor due reward for the research leading to the invention". Table 4-6 shows the number of applications under this Section of the Act from 1935 to June 1969 when the new provisions became effective and in the first 10 months after the changes came about. It is interesting to note that the introduction of the new law did correspond with a rapid rise in the number of applications for compulsory licences, most of which are for drug imports. The later point about imports is probably the main reason for the applications.

---

[1]These changes were passed by Parliament in 1969. At the same time the Trade Marks Act was altered because it too had clauses that could inhibit imports.

Table 4-6

APPLICATIONS FOR COMPULSORY LICENCES
UNDER SECTION 41 OF THE PATENT ACT

	Applications Made:	
	Between 1935 and June 27, 1969 (Section 41(3))	Between June 27, 1969 and October 30, 1970 (Section 41(4))[1]
Licences granted	22	46
Applications refused	4	1
Applications abandoned or withdrawn	23	17
Applications pending as at October 30, 1970	--	26
Total	49	90

[1] Changes in the Patent Act regarding drugs became effective June 27, 1969.

Source: The Patent and Copyright Office, Department of Consumer and Corporate Affairs.

PATENTS AND COMPETITION

Although Section 41 embraces a wider consideration of the public interest in gaining access to low-priced patented articles than does Section 67, there is no remedy in the Patent Act with which to deal with any of the restrictive practices with which the Council was concerned in its *Interim Report on Competition Policy*. Thus what may be described as attempts to extend the patent monopoly through practices such as price-fixing, resale price maintenance, price discrimination and tied sales may be carried on by the patent-holder without fear of intervention by the Commissioner of Patents.

There is, however, another person who might intervene to protect the public interest against restrictive practices that extend beyond the scope of the patent grant -- the Attorney General of Canada. Section 30 of the Combines Investigation Act states:

"30. In any case where use has been made of the exclusive rights and privileges conferred by one or more patents for invention or by one or more trade marks so as

(a) unduly to limit the facilities for transporting, producing, manufacturing, supplying, storing or dealing in any article or commodity which may be a subject of trade or commerce; or

(b) unduly to restrain or injure trade or commerce in relation to any such article or commodity; or

(c) unduly to prevent, limit or lessen the manufacture or production of any such article or commodity or unreasonably to enhance the price thereof; or

(d) unduly to prevent or lessen competition in the production, manufacture, purchase, barter, sale, transportation or supply of any such article or commodity;

the Exchequer Court of Canada, on an information exhibited by the Attorney General of Canada, may for the purpose of preventing any use in the manner defined above of the exclusive rights and privileges conferred by any patents or trade marks relating to or affecting the manufacture, use or sale of such article or commodity, make one or more of the following orders:

(i) declaring void, in whole or in part, any agreement, arrangement or licence relating to such use;

(ii) restraining any person from carrying out or exercising any or all of the terms or provisions of such agreement, arrangement or licence;

(iii) directing the grant of licences under any such patent to such persons and on such terms and conditions as the Court may deem proper, or, if such grant and other remedies under this section would appear insufficient to prevent such use, revoking such patent;

(iv) directing that the registration of a trade mark in the register of trade marks be expunged or amended; and

(v) directing that such other acts be done or omitted as the Court may deem necessary to prevent any such use;

but no order shall be made under this section which is at variance with any treaty, convention, arrangement or engagement respecting patents or trade marks with any other country to which Canada is party."

The Ilsley Commission recommended that the above section should also be incorporated into the Patent Act so that the latter piece of legislation would contain a more complete delineation of the rights of patentees. Under the Combines Act, only the Attorney General is able to take action; under the Ilsley proposals, any interested party would be able to make representation.[1] We accept the Ilsley proposal to allow more extensive scope for actions to be initiated, that is, by any interested party.

Section 30 of the Combines Investigation Act, which purports to restrain the way in which a patentee may use his right to exclude others, is at present one of the less-clear and seldom-used parts of the legislation. It would therefore appear to be advisable to spell out in that Act, as clearly as in the proposed revisions to Section 32,[2] the type of anticompetitive practices exercised by patent-holders that are considered to be detrimental. Similarly, the Patent Act should contain a clear statement defining the limits of rights exercisable by patentees. If this is not done, the courts and administrators will continue to be confronted with problems of consistency vis-à-vis two sets of legislation. As stated by the present Director of Investigation and Research, Combines Investigation Act:

---

[1]Royal Commission on Patents, Copyright and Industrial Designs, *Report on Patents of Invention*, Ottawa, Queen's Printer, 1960, p. 85.

[2]Economic Council of Canada, *Interim Report on Competition Policy*, *op. cit.*, pp. 101-107.

> "In any situation coming to the attention of the Director in which the use of a patent to restrain competition in any way that in other circumstances are prohibited by the Combines Act, the Director is faced with the necessity of balancing two principles of public policy -- the first being the protection of free competition, and the second being the encouragement of invention and the development of new products and processes by the legal creation of monopoly in the patent owner; in deciding whether an inquiry is warranted in a particular case involving a patent, the Director must reconcile and harmonize the application of the statutes embodying these two important principles of public policy."[1]

THE TERM OF THE PATENT

Mention was made earlier of types of provisions that governments may use to qualify the rights of patent-owners -- compulsory licensing and revocation of the patent. There is also a third -- variations in the term of the patent grant. The state-conferred grant to a patentee is not unlimited in scope, nor is it perpetual in duration. In Canada, the term of the patent expires 17 years from the date it is issued. This time limit is purely arbitrary, and there is no convincing rationale justifying *any* specific term. The choice of any one period is as much an historical accident as anything else, for it is not possible to quantify precisely the number of years required to provide the degree of protection needed to induce resources to flow into invention and innovation.

The term now in use in Canada has been changed five times since the original 14-year limit specified in the first Patent Act. The 14-year period itself was imported from the British Act and is said to have reflected the belief that the spread of knowledge about new techniques would be assured by allowing the inventor enough time to train seven sets of journeymen or two sets of

---

[1]D.H.W. Henry, Q.C., Director of Investigation and Research, Combines Investigation Act, *Notes for an Address to the Montreal Chapter, The Patent and Trade-mark Institute of Canada*, March 31, 1966.

apprentices or one master under the rules of the guilds. In the Act of 1849, provision was made to allow for an extra seven-year period if, at the end of 14 years, the patentee had failed to obtain reasonable remuneration. In 1869, the term was set at five years but the patent-owner was given the option of renewing the patent for two additional terms of five years each, an effective term of 15 years. This was extended in the Act of 1892 to three periods of six years each and in the revision of 1921,the term was made a straight 18 years. However, in 1923 the term was reduced to the present 17-year period, the term in effect today. The Ilsley Commission recommended that the term of the patent should date from the date of application. Given the present two-year average pendency period between application and patent grant, this could result in reducing the effective term of the patent from about 19 years to the 17-year term specified in the Act. The term of patents issued in other countries varies considerably from one system to another. The term of the patent grant issued in the United States is the same as Canada's; but in Britain the term is 16 years; in France, 20 years; and in Germany, 18 years -- all dating from the filing of the application.

SPECIAL TYPES OF PATENTS

France and Germany have attempted to deal with the backing-up of patent applications awaiting the detailed search by the Patent Office to determine the novelty of the claimed invention by implementing a system whereby the applicant may elect to forgo examination of his application in return for a shorter term of protection. These are called "certificates of utility" in France and have a six-year term, while the German "petty patent" runs for two periods of three years each. In the United States, the President's Committee recommended that that country grant to the Secretary of Commerce stand-by powers to introduce a deferred examination system, should this be in the best interests of the public.[1] Under this proposal an applicant may request that the examination of his application be deferred for five years. If he or a third party has not requested examination at the end of that

[1]Report of the President's Commission on the Patent System, *op. cit.*, pp. 19-22.

time, the application is abandoned. While such mechanisms obviously help to speed up the processing of patent applications and raise the standard of quality on full-term patents, they are not without costs -- costs which include the award of even short-term monopoly powers to inventors who choose the shorter route in the belief that their application would not survive the rigours of examination. Such a patent category would not, in our view, serve Canada's economic interests.

SOME FURTHER RESULTS OF THE PATENT SURVEY

Respondents to the questionnaire were asked to indicate how they saw the significance of the Canadian patent system in their decision to actually work their patents in Canada. The results are summarized in Table 4-7. About 40 per cent of all returns indicated that the Canadian patent system was of little or no significance -- another 45 per cent, that the Canadian patent was of fair significance -- in the decision to work the invention.

Individuals and smaller firms indicated the greatest degree of reliance on patents.[1] These responses tend to support the conclusion in a study conducted at the Harvard Business School:

> "The value of patents as a stimulus to technical investment in large and well-established corporations is similar to their value to the independent inventor or to the small and struggling firm. As long as other factors such as distribution channels, relative costs of production, brand preference, and engineering know-how are well established, patents are relegated to an unimportant niche in the decision-making process. But when corporations contemplate moving into areas where they have very little experience or market following, where they must in effect begin all over again just as the small company must begin, then patents can become an important factor. The security of good patent protection makes up for the lack of security regarding those other factors upon which the company's day-to-day business success is based."[2]

---

[1] The survey data covered all sizes of firms. Those where ownership was not able to be clearly identified were included in the "small firm" category.

[2] Scherer, *op. cit.*, p. 150.

Table 4-7

REPORTED IMPORTANCE OF A CANADIAN PATENT
IN THE DECISION TO WORK PATENTED INVENTIONS

Ownership Characteristics of Patentee	In Decision to Work, Canadian Patent Was: Of Little Significance	Of Fair Significance	Of Major Significance	Total
	(Per cent)			
Canadian patents held in Canada by:				
Canadian-owned firms	41.4	32.3	26.3	100.0
U.S.-owned firms	35.9	52.3	11.7	100.0
Firms owned in other countries	64.9	32.4	2.7	100.0
Firms with unknown or uncertain ownership	19.4	47.2	33.3	100.0
Government[1]	81.8	7.6	10.6	100.0
Individuals	25.6	40.2	34.1	100.0
Canadian patents held in United States by:				
Firms with Canadian subsidiaries	42.4	48.3	9.3	100.0
Firms without Canadian subsidiaries	38.4	46.3	15.3	100.0
Individuals[2]	--	--	--	--
Canadian patents held in other countries by:				
Firms with Canadian subsidiaries[3]	35.5	64.5	0	100.0
Firms without Canadian subsidiaries[4]	49.2	32.8	18.0	100.0
Individuals[2]	--	--	--	--
All returns, of which:	40.9	45.6	13.5	100.0
Canadian inventions	48.5	29.9	21.6	100.0
Foreign inventions	39.2	49.2	11.6	100.0

[1] Includes all levels of government in Canada, Crown corporations, and nonprofit institutions receiving government support.

[2] A total of only three responses, from individuals holding patents in all foreign countries.

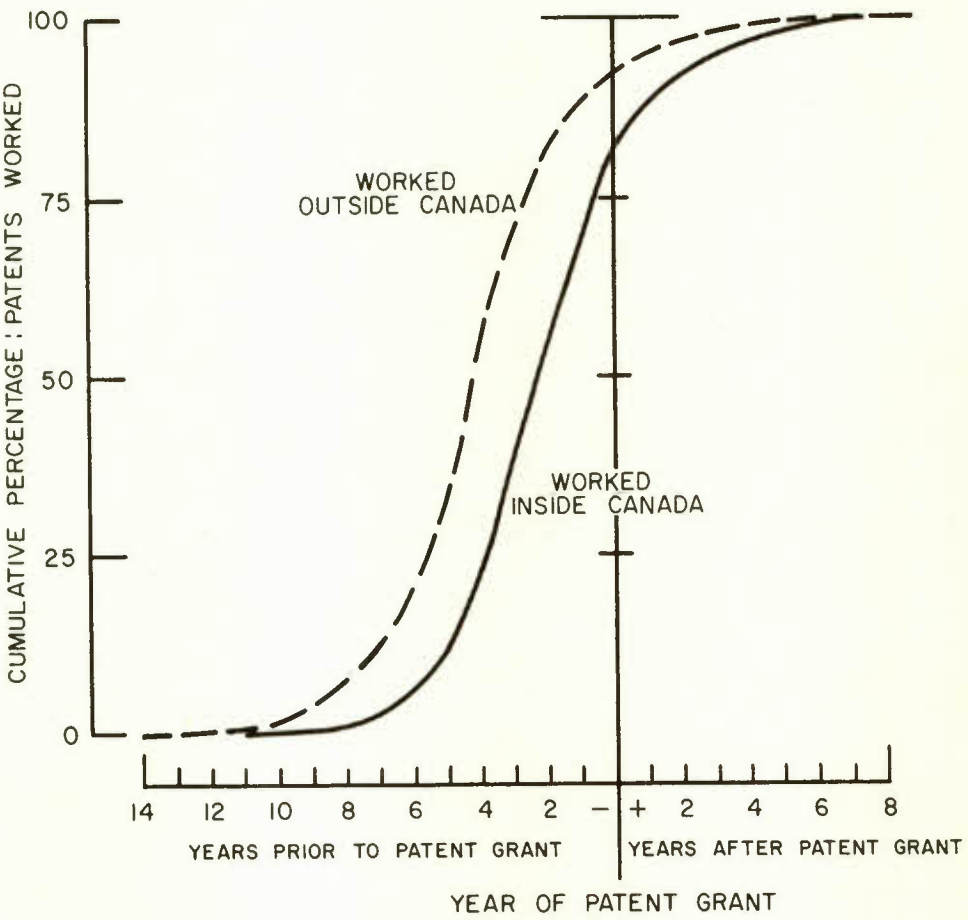
[3] Includes total of only five responses.

[4] Includes a total of only eight responses.

Source: Economic Council of Canada patent questionnaire survey, based on a sample of patents issued in 1957, 1960, and 1963.

Chart 4-1

YEAR CANADIAN PATENT FIRST WORKED
RELATED TO YEAR OF PATENT GRANT



Source: Economic Council of Canada patent questionnaire survey.

The questionnaire survey also revealed (see Chart 4-1) that the production of those patented inventions which are eventually worked in Canada is, for over half of the patents, initiated two or more years before the patent is granted. In some cases, the time lapse is considerably longer. In many instances this undoubtedly reflects the length of time taken to examine a patent application. But it perhaps also reflects another factor, that the decision to make use of a new invention may not be closely linked to the importance of obtaining a Canadian patent. Also the designation "patent pending" may be regarded by many holders as affording sufficient protection to warrant proceeding to the production and marketing of the invention, even though no legal authority can be invoked to counteract the copying of the invention by others until such time as the patent is granted. Thus it seems that for many innovators, the mere anticipation of patent protection (by themselves and in some cases by potential competitors) provides enough incentive to complete the innovative process so far as it relates to the Canadian market.

Of more importance to the Canadian patent system is the role of foreign patent-holders and their behaviour. The survey results revealed that over 85 per cent of the patents issued in the three sample years are held abroad (further patents being held *in* Canada by resident firms owned abroad, thus accounting for the higher figure of 95 per cent original foreign ownership of Canadian patents) and that only 12 per cent of these patents held abroad are actually worked in Canada. It was also noted that the time when those patents worked abroad were first worked was, for more than half of the patents, four or more years prior to the granting of the Canadian patent.[1] Relating this and other factors to the role of compulsory licences, under Section 67, one finds the licensing provisions to be, in effect, very weak. After the four-year

---

[1] These data are consistent with another finding which showed that 96 per cent of the inventions issued in the United States in the years 1938, 1948, and 1952 had been worked before the actual issuance of the patent. That study also found that one-third of the commercially useful patents had been worked before filing the application. Barker S. Sanders, "Speedy Entry of Patented Inventions into Commercial Use", *Idea: Patent, Trademark and Copyright Journal of Research and Education*, Spring, 1962.

delay from the making available of the technology to the world through actual working abroad to the issuance of a Canadian patent, one finds another three-year delay set by the conditions of the International Convention followed by an additional period of about two years before a licence has been processed. Thus even successful applicants under the present provisions can only expect to get access to technology almost nine years old. In today's rapidly changing world these methods or products may well be obsolete. So, in spite of impressive wording and references to the public interest in Section 67, its practical operations are far less effective, and Canada's patent system takes on a role largely of market protection rather than a role of providing incentives to domestic innovation.

ASSESSMENT OF THE CANADIAN PATENT SYSTEM

As was noted earlier, the patent system, like other forms of intellectual and industrial property, involves social costs as well as benefits, all of which must be taken into account in framing policy. The general nature of these costs and benefits was analysed in Chapter 3. It will now be apparent that the analysis of costs and benefits in the Canadian case involves consideration of some special features and peculiarities of the Canadian system and the environment in which it operates.

Of the various statistical findings on patents summarized in the present chapter, the following are of particular importance in the assessment of the Canadian system as a whole:

(a) Relative to the size of its economy, Canada has an unusually large number of patents outstanding.

(b) For many years, only about 5 per cent of Canadian patents granted have gone to Canadian nationals.

(c) Only about 15 per cent of recent Canadian patents granted have actually been worked in Canada. However, nearly half the total patents were worked outside of Canada (a small minority of this group being worked both inside *and* outside of

Canada). Close to another half of the inventions covered by Canadian patents were not worked anywhere in the world.

(d) Some 12 per cent of Canadian patents held abroad have been licensed to Canadian firms, and some 10 per cent of Canadian patents held in Canada have been licensed to other Canadian firms.

(e) Worked inventions covered by Canadian patents are typically first put to use abroad some significant time before the Canadian patent is granted.

Given that many patents inevitably represent unfulfilled dreams, while many others are defensive patents designed to minimize the risk of infringement suits or to prevent competitors from using technologies that are threateningly close substitutes for the one actually being employed by the patentee, it is not unusual for a substantial proportion of the patents in a national system to be unworked anywhere in the world. Also, one of the findings of the Ilsley Commission -- that many Canadian patents granted would probably be found invalid if tested in the courts[1] -- could be applied to other countries' systems as well. What *is* unusual in the Canadian system is the high relative number of patents granted, the very high proportion granted to foreigners, and the very low proportion worked in Canada.

Various factors can be identified as helping to account for this situation. The geographical proximity of Canada to the United States, the abundance of economic ties between the two countries, and the attractiveness to Americans of the Canadian market with its high average income undoubtedly find some reflection in the patent statistics. But it is also likely that certain characteristics of Canadian patent legislation and its administration have played a significant role -- for example, the reportedly greater ease of obtaining a patent in Canada than in some other countries such as the United States, Germany and Japan, and the very limited use that has been made of the compulsory licensing provisions in the existing Canadian Act.

---

[1]Royal Commission on Patents, Copyright and Industrial Designs, *Report on Patents of Invention*, *op. cit.*, pp. 8-10.

On the whole, it is hard not to emerge from this analysis with the assessment that, as a means of encouraging industrial innovation in Canada, whether based on domestic inventions or on foreign inventions, plus rapid "technological transfer" into Canada, the existing patent system has not been an outstanding success. It appears to have achieved its main objective along only a small proportion of the total front, and even there, cases have undoubtedly occurred where the working of patents in Canada has been high-cost working by international standards and consequently a poor use of Canadian productive resources. In other words, the system has operated in some instances as an absolute trade barrier, protecting inefficient Canadian production.

But a patent system can have important deleterious effects on the Canadian economy even when it shelters no high-cost domestic production. It then becomes a means by which the patentee, with his production facilities perhaps quite rationally located in some other country, maintains a higher price for his product to Canadian buyers. The patent system does, of course, inevitably make for higher prices to the consumer, in the sense and in the fashion described earlier. But the impression which strongly emerges from the statistics and from the more detailed evidence of international price discrimination against Canada, flowing from such sources as successive official inquiries into drug prices, is that Canada may well be bearing more than her fair share of the price effect. Looking at patents as an international system, there is a presumption that we are carrying too large a proportion of the costs of the system in relation to the proportion of the benefits that we receive.

Given the nature of patents, including notably the inherent nonmeasurability of their incentive-induced social benefits on the one hand and their social costs on the other,[1]

---

[1]To measure the social benefit obtained from an incentive, one has to be able to measure what would have happened in its absence, and the same may be said about the social costs of conferring limited monopolies. To measure both precisely and usefully, for policy purposes, one would need to be able to compare an economically imperfect world having a patent system to a "control" situation of a still highly imperfect world having no patent system. Such a comparison is clearly not possible in the present state of the statistical art. This does not mean, however, that all attempt at measurement is useless in this area; as a source of partial and indirect evidence, it can be extremely valuable.

the above assessment is not reducible to simple calculations pointing to precisely graduated policy prescriptions. But enough is known, we believe, to improve appreciably Canada's total bundle of incentive policies for the encouragement of the kind of industrial innovation covered by the patent system.

Some economists, especially in the light of the Canadian evidence given here, might be disposed to counsel an abandonment of the patent system by Canada in favour of other incentives. Many of these incentives -- tax concessions, subsidies, direct participation by governments and other noncommercial bodies in innovative activity through such agencies as the National Research Council -- are already being used on a considerable scale. Others have been suggested, such as discretionary government awards to successful innovators based on various criteria of innovative costs incurred and the estimated value of the innovations to society. One more novel scheme would provide that where a pressing social need for some particular invention was perceived, a financial prize for it might be offered in advance by government and the right to try for it auctioned off to the highest bidder.[1] Like the patent system, all of these various incentives have, or would have, social costs as well as benefits to be taken into consideration. It could, however, be argued that to finance incentives by broad-based taxes (the probable fiscal consequence of more direct government involvement) is, in the final analysis, less distorting to a market price system than to finance by private "taxes" on particular, invention-related commodities, which is what effectively happens under the patent system.

But while we are very far indeed from dismissing the utility of some, at least, of these alternative devices, and of others that may subsequently be hit upon, we have concluded that, on balance, Canada would do well to maintain, as a significant part of her policy "package" for the encouragement of industrial innovation, an improved version of the patent system. To begin with, the unpleasant fact must be faced that for Canada to go it alone,

---

[1]A number of these alternatives are described and assessed in B. V. Hindley's study, *op. cit.*

completely outside the international patent system, in a world where most of the economically larger countries with whom she does business remain strongly committed to the maintenance of such a system, would almost certainly give rise to great diplomatic and other pressures and retaliations. The most damaging of these might be actions which denied Canada access to valuable knowledge that was previously available to her and that could only be reproduced domestically at disproportionate cost.

On a more positive note, it can be said that for all its social costs and uncertainties, the patent system does have the important virtue of allowing the market, rather than government officials, to pronounce the basic verdict on the relative value of different innovations. To be sure, the market that speaks may often be a very imperfect one to start with, and the introduction of patent protection is likely to make it more so, but at least the strength of public demand for new products, or products made by new processes, still bears heavily upon the relative strength of the signals that go back to innovators wondering what to do next. Patent monopoly or not, if the public evinces no great desire for a new product, a discouraging market signal will be communicated to innovators who were thinking of doing something in the same general area, and except under rather exceptional circumstances, this is likely to be a socially desirable signal, tending to avert resource waste. If, on the other hand, the public responds very favourably to a new patented product so that its innovators strike a bonanza, other potential innovators will be thus informed that a certain general product area is "hot" and therefore worth investigating. The issues here are not simple -- some patent bonanzas, for example, may give rise mainly to the more technologically trivial and socially wasteful kinds of "inventing around". But in general, for an incentive system to be compatible with the sending back of *graduated* rewards and signals, on the graduation of which consumer decisions exert an important influence, is something significant in its favour.

SPECIFIC CRITERIA FOR THE CANADIAN PATENT SYSTEM

In Chapter 9 of this Report, we urge that all major aspects of intellectual and industrial property law in Canada be kept under review in future. This statement is definitely meant to apply to patents, where assessments of the system's value to Canada will depend importantly on its performance over the next few years. For the present, however, we find the balance of argument to be in favour of retention, and we therefore proceed, in the next chapter, to recommend improvements in the Canadian patent system that will lessen some of its costs to the public and improve its efficiency as part of the total package of incentive policies. In doing so, we have employed, in addition to relevant general principles enunciated in earlier parts of this Report, a number of more specific criteria as follows:

(1) The Canadian patent system should encourage invention and other steps in the total innovative process within Canada.

(2) It should encourage rapid and effective dissemination of technical information and other "technological transfer", both within Canada and between the rest of the world and Canada.

(3) It should facilitate the making of a fair Canadian contribution, but no more than that, to the economic costs of providing appropriate special incentives to research and innovation the world over.

(4) It should be compatible with Canada's broader strategy of economic development and science policy. For example, it should not encourage, as it might if the working-in-Canada provisions of the existing Patent Act were vigorously enforced, a new proliferation of small-scale, high-cost manufacturing in Canada. Rather, it should help to promote the kind of internationally competitive pattern of secondary manufacturing that was envisaged in the "Scale and Specialization" chapter of the Economic Council's *Fourth Annual Review*. While working of foreign inventions in Canada is normally the most complete and effective means of technological

transfer into Canada, it is achieved at too high a cost if it results in Canadian resources being used in productive ventures that can never aspire to exports and can only go on existing domestically behind an absolute patent barrier to imports. In such cases efforts should be concentrated on conveying knowledge of the relevant technology into Canada by other means, on a purely informational basis for the time being.

(5) The reformed Canadian patent system should be administratively workable, without any major net addition to existing overheads, but with provision for a more effective performance review than has been possible in the past. There should also be more effective inter-relation with other government policies bearing on industrial innovation. A more thorough-going preparation for Canadian participation in international patent conferences is also appropriate since these constitute an activity related to a vital national economic interest.

CHAPTER 5

PATENTS: POLICY RECOMMENDATIONS

This chapter opens with a basic group of specific recommendations about the Canadian patent system, followed by an assessment of the likely economic effects of these recommendations and their relationship to other forms of incentive to innovation.[1] A final section of the chapter deals with the more specialized policy question of whether patent protection ought to be extended to computer programs.

BASIC RECOMMENDATIONS

Administrative Structure

The office of Commissioner of Patents in the Department of Consumer and Corporate Affairs should be redesignated that of Commissioner of Intellectual and Industrial Property, and the duties of the office redefined to embrace the administration of the Patent Act, the Copyright Act, the Trade Marks Act, and the Industrial Design Act. The office of Commissioner must be regarded as a very senior one. Administrative officers with responsibilities and experience in these areas should be related to the new Commissioner in an appropriate way. A small but high-quality Policy Advisory and Planning Group, with economic and technological as well as legal

---

[1] A recent study, *The British Patent System*, Report of the Committee to Examine the Patent System and Patent Law, London, 1970 (The Banks Report), has made various detailed and specific recommendations for the British system. We have given due consideration to their recommendations in formulating our policy proposals. We have likewise taken cognizance of the Science Council of Canada's study by A. H. Wilson, *Background to Invention*, Special Study No. 11, Ottawa, Queen's Printer, 1970.

expertise, should be set up to assist in evaluating the effects of the patent and other intellectual and industrial property law, to do research into newly emerging policy problems, and to advise on policy positions for international negotiations.

Timing of Applications

Canadian patents should in future be granted on a first-to-file rather than a first-to-invent basis. There appears to be wide support for this change, which would encourage early disclosure of inventions and would bring Canada into line with the practice followed by the majority of countries with patent systems.

Grace Period before Filing

The present grace period for prior use -- the two-year period during which the invention may be used or sold and still be eligible to receive a patent -- should be eliminated. Under this proposal, information pertaining to new discoveries would be filed with the Patent Office and made available at an earlier date. The term "use" should be consistent with that in the present law, Section 29(2).

The Patent Term

The term of the patent should run from the date of application. This would bring the effective term into line with the 17-year term stipulated in the Act.

Publication of Applications

The publication of patent applications should take place by the Patent Office within 12 months after the filing of the complete specification, so that any interested party may apply, within a further 12-month period, to have the application disallowed. Meanwhile, Canada should continue efforts at the international level to have the international search procedures of

the Patent Coöperation Treaty instituted, and should also encourage, both at home and abroad, the improvement of standards of patent disclosure and the use of patent registers as a "data base" for more effective systems of disseminating technological information. These reforms, like the three preceding ones, would streamline the system, while the institution of the international search would economize somewhat on the use of resources in the Patent Office. As to the use of the patent register, one well-informed official source has noted that the Canadian register is probably the largest single accumulation of technological knowledge in the country. The wider diffusion of its contents in various convenient and attractive formats is clearly warranted.

Information about Licences

Certain basic information about all licences, compulsory or voluntary, granted under Canadian patents should be made available to the Commissioner of Intellectual and Industrial Property and kept in a public register. This information should include, as a minimum, the royalty fee, the term, and the geographical extent of the licence, plus such other information as the Commissioner in his discretion believes ought, in the public interest, to be in the register. Apart from minimum requirements, certain items of information might be omitted in particular cases where the Commissioner could be persuaded that disclosure would damage the competitive position of one or both of the parties to the licence agreement in a way that was not in the public interest. The granting and enforcement by the State of a patent right is a privilege, and a public disclosure requirement has traditionally been attached to this privilege. This recommendation extends the disclosure requirement to licensing agreements, the main facts of which may be regarded as basic elements of the patent right itself and important information concerning the progress of the Canadian economy.

Renewal Fees

Renewal fees for Canadian patents should be imposed at the end of each five years of the patent's life. This would draw from the owners of patents that

were being worked part of the cost (perhaps most of the cost) of operating the Patent Office.

Import Restrictions

The patent right should be so defined that neither the holder of a Canadian patent nor any licensee thereunder should have the right to prevent the importation into Canada by any person of the patented article, or an article made by the patented process, from other countries where the article or process enjoys patent protection. The main purpose of this recommendation would be to prevent a patentee from using the Canadian patent system as a means of assisting any international price discrimination to Canada's disadvantage -- i.e. from charging an unjustifiably higher price in Canada than in other countries where he has patent protection. It would also serve to discourage future use of the Canadian patent system as a trade barrier behind which to set up high-cost, internationally noncompetitive production in Canada. At the same time, it should be clear that Canadian patentholders or their licensees should have the right to prevent the above types of importation from countries in which patent protection for the relevant article or process is not available.

One or two recent incidents have demonstrated that, where importation or domestic manufacture under compulsory licence is already in use as a remedy for high prices in Canada of articles produced by patented processes, patentees are sometimes able to take certain steps, at home or abroad, to frustrate this remedy. For example, where distribution abroad of the relevant article is tightly controlled, the patentee may be able to withhold supply from would-be Canadian importers. Or if a Canadian producer has been granted a compulsory licence to manufacture and distribute the article domestically, he may find himself up against predatory pricing on the part of the patentee or some previous licensee thereof, who may for a time sell the product in Canada at a price too low for the compulsory licensee to meet and still stay in business. Where such tactics are employed, a variety of counter measures can and should be deployed against them. The Combines Investigation Act may be useful in some instances, and co-operative action with foreign governments, in others. The Royal Commission on Farm Machinery uncovered some dimensions of this problem

in the market for farm tractors, and some of the progressively escalating steps in the series of remedies which it suggested could well be applicable to other situations.[1]

Relationship to Competition Policy

The patent right should also be so defined in the Act that the patentee is accorded only a basic exclusive right, without any supplementary right to engage in practices prohibited under competition policy legislation. It should be made clear that where the existence of such practices is proven, competition policy legislation overrides patent legislation, so far as remedies and discontinuance of the practices are concerned. This, it is hoped, would substantially resolve a long-standing conflict of laws. It would also make the Economic Council's patent recommendations consistent with those contained in the *Interim Report on Competition Policy*.

General Compulsory Licensing

All Canadian patents should normally become eligible for an automatic non-exclusive licence to manufacture in Canada five years after the application for the patent. The only exceptions to this rule should be those cases where the first commercial use of the invention anywhere in the world occurs after the Canadian application, in which event the eligibility for an automatic non-exclusive licence to manufacture should become effective five years after this first commercial use. One purpose of this recommendation is to give Canadian producers who believe themselves capable of working a Canadian patent and competing effectively with it in the market, while paying a reasonable, incentive-maintaining royalty to the patentee, the opportunity to do so. This would add to the effective dissemination of technology in Canadian industry because it would encourage the working of a wider range of patents in Canada, at least in cases where this can be done economically. Another purpose is the consumer-assisting competitive effects of the recommendation about import-restricting potential which should encourage lower prices in Canada than would otherwise prevail.

---

[1]Royal Commission on Farm Machinery, *Special Report on Prices*, Ottawa, Queen's Printer, 1969, pp. 95-98.

The "first-commercial-use" qualification appears to us to be an appropriately flexible way of taking account of variations in some individual circumstances, including notably the varying amounts of further work that may have to be done on certain patented inventions before they are ready for the market or for incorporation into productive processes. There are, of course, other conceivable ways of dealing with the problem of providing flexible systems of "head starts" -- for example, by the setting of different licence-free periods for different products or industries. Further details of the proposal appear in the next major section of this chapter.

Special Compulsory Licences: Complementary Technology

It should be provided that a compulsory licence in the case of patents for "complementary technology" may be granted by the Commissioner of Intellectual and Industrial Property, subject to appeal to the Appeal Board discussed below, before the expiry of the five-year "head start" period specified above for other patents. This would be effectively the same as a recommendation of the Ilsley Commission, providing for the issuance of a compulsory licence where, "by reason of the refusal of the patentee to grant a licence or licences on reasonable terms ... the working or efficient working in Canada of any other patented invention which makes a substantial contribution to the art is prevented or hindered...." While there might be some problem in defining "complementary technology", we intend it to mean those patents that are marginal additions to a presently established art or product, and that have required a relatively small input of resources. The definition in each case would be at the discretion of the Commissioner of Intellectual and Industrial Property and would be made at the time of an application for this particular type of licence.

An Appeal Board

An Appeal Board should be set up to deal justly and expeditiously with appeals from certain decisions of the Commissioner. Among these decisions would be appeals on the matter of "complementary technology" patents, and decisions as to rates on the general compulsory licences. Appeals on matters of law could be taken to the Exchequer

Court or to the Supreme Court of Canada, but the actual issuance of a licence for "complementary technology" would not be appealable beyond this Appeal Board. Similarly, appeals on licences granted under the general licensing recommendation would not be subject to further appeal, except on points of law, but would be "licences of right". It is to be explicitly noted that the applicant for a licence would be entitled to any and all relevant licences necessary to operate the process or make the product, so that appeals based on such technicalities as the thoroughness of the listing in an application would not be permitted. Decisions of the Appeal Board would be made public, along with statements of reasons for the decisions. Membership of the Board would have to be competent and capable of recognizing broad national interests. As will be seen from one of our recommendations concerning copyright, we would conceive the Appeal Board's functions as applying not only to patents but also to other forms of intellectual and industrial property.

Nothing in the new legislation would restrict the Commissioner from issuing those compulsory licences covering food and medicine that the Commissioner of Patents is now empowered to issue under Section 41, as recently revised. Also, in accordance with a recommendation of the Ilsley Commission, inventions "capable of being used as or as part of a surgical or therapeutic device "would be treated in the same way as food and medicine.

THE PROPOSED SYSTEM OF COMPULSORY LICENSING

Experience, both in Canada and abroad, points to the conclusion that if a system of compulsory licensing is to work well -- to encourage full technological transfer and invention-embodying production in Canada where this is economically justified, while at the same time keeping within just and reasonable bounds Canada's contribution to the economic cost of the world patent system as a whole -- it must operate with a fair degree of certainty and speed. Potential licensees should know in advance the rate they may expect to pay for a licence and should be reasonably assured that the final disposition of the matter will not be tied up in long and costly litigation, at the end of which the patented invention may well have become obsolete. If these conditions do not obtain, few licensees are likely to come forward, and the possibilities of compulsory licences actually being issued will be too faint and sporadic to have the desired effect on the prices and production in

Canada of articles covered by patents. Lack of certainty and speed is believed to be a major reason why the present compulsory licensing provisions in the Patent Act, although in principle broad in their scope and applicability, have been relatively little used.

Certainty and speed are qualities often achieved at the expense of a degree of arbitrariness, and the procedure recommended for the initial determination of royalties under compulsory licences is necessarily quite arbitrary. It should be noted that the patent system is already highly arbitrary, not least in the arbitrariness which must in practice be exercised by the Patent Commissioner under the existing royalty provisions. For example, under Section 41 of the Patent Act, concerning compulsory licences for food and medicine, the Commissioner of Patents, in settling the terms of the licence and fixing the royalty, is directed to:

> "... have regard to the desirability of making the food [or medicine] available to the public at the lowest possible price consistent with giving to the inventor due reward for the research leading to the invention."

Under Section 68(a), concerning other compulsory licences, the Commissioner in settling terms must:

> "... endeavour to secure the widest possible use of the invention in Canada consistent with the patentee deriving a reasonable advantage from his patent rights..."

But, on the other hand, the Commissioner must also:

> "... endeavour to secure to the patentee the maximum advantage consistent with the invention being worked by the licensee at a reasonable profit in Canada...."

We recommend that in future some form of words like the following adaptation of Section 41(3) -- "... have regard to the desirability of making the patented article or article made by the patented process available to the

public at the lowest possible cost consistent with giving to the inventor and his associates due reward for the once-for-all research and other innovation costs involved in bringing the invention-embodying product to the market..." -- be utilized as a broad criterion, but that the Commissioner of Intellectual and Industrial Property be given more guidance as to how to conform to it in practice.

To these ends we recommend that:

1. A basic royalty rate should be given in the legislation or regulations and this should be set in terms of a percentage of the actual (or, if necessary, imputed) selling price of the relevant articles or components. The component price would be the relevant base where the article was only partly made up of the patented input.[1]

---

[1]Where patentees issue licences voluntarily, they often do so not for a set royalty fee payable in money, but on the basis of some kind of barter exchange of patent rights and technological information. It would be impracticable for the Commissioner, in issuing compulsory licences, to try to set up such barter arrangements, or to integrate the compulsory licence into already existing barter arrangements. But the presence of broader compulsory licensing provisions need not inhibit and might even somewhat encourage voluntary pooling and exchange arrangements. Where under such arrangements a licence had already been issued to a Canadian producer who was supplying the market on reasonable terms, applicants for compulsory licences would be less likely to appear.

Patent exchange and pooling arrangements may well facilitate socially desirable technological transfer. Under some circumstances, however, they may operate more as a protective wall (more formidable often in appearance than it might prove to be in reality if substantial resources were available to test its strength in the courts) from behind which a group of producers scare off potential competitors. Improved protection of the public against any deleterious effects of such arrangements would be provided by the recommendations related to competition policy, import barriers, and compulsory licences.

2. Individual patentees should be given the opportunity to petition and subsequently appeal for higher rates only on specific grounds of nonrecovery from Canada of Canada's share of innovation costs (defined to embrace clearly the concept of the "total innovative process" as defined above). This appeal should be such that the onus of proof is on the patentee and can come no sooner than three years after the granting of the first compulsory commercial licence. Any such appeal shall not lower the rate nor make any change retroactive to the date of appeal application. No appeals should be permitted by licensees for rate adjustments. No re-appeal should be permitted.

3. At the discretion of the Commissioner, and in the light of experience gained in the operation of such a compulsory licensing system, the basic royalty rate may be adjusted, possibly in such a way as to allow for special rates for certain industry and product categories. Changes of this type could be appealed to the Appeal Board.

It could be expected that for successful inventions, the proposed five-year licence-free period would permit not only recovery of Canada's share of innovation costs of the patentee but substantial returns above such costs, and that where the invention-embodying product continued to sell well after five years, the royalty rates under compulsory licence would continue to bring the patentee appreciable further returns. Under these circumstances, only a minority of patentees -- those, notably, with only modestly successful inventions -- would be likely to contest seriously the licensing royalty rates determined by the Commissioner on the basis of the above proposals. We consider it to be very important to have a system that will minimize contestations, in the interests of maintaining a high degree of administrative workability and avoiding delays and backlogs in the operation of such a system. Where contestation was elected, it would consist initially of a request to the Commissioner, with supporting argument and documentation, that he set a rate above the standard rate in a particular instance. The Commissioner would be required to make his decision within a relatively short period and to state publicly his reasons for it. After three years, the patentee would have the right to appeal the Commissioner's

decision to the Appeal Board, whose decision would also be subject to a time limit and to the condition that reasons be stated. From that stage on, appeal on points of law would be made to the Supreme Court of Canada.

In order to ease the time constraints on decisions by the Commissioner and the Appeal Board, patentees would have the option of submitting, in advance of the expiry of the five-year licence-free period, argument and documentation in support of royalty rates higher than the standard rates as set above.

LIKELY ECONOMIC EFFECTS OF LICENSING

The likely economic effects of all of the above recommendations would depend to some extent on the rates of royalty charged (and expected to be charged) on compulsory licences. However, given past patterns of ownership and working of Canadian patents, it can be asserted that the major impact of the recommendations would be a benefit to Canadian purchasers, both business and consumers, through a tendency towards reduction of Canadian prices of products covered by Canadian patents but only manufactured abroad. The opening up of the right to import such products into Canada from other countries where they enjoyed patent protection would greatly reduce the potential of the patent system as a vehicle for the practice of international price discrimination against Canada. In addition, the availability of compulsory licences at reasonable royalties to work such patents in Canada would also exert a favourable influence on prices of intermediate and final goods purchased by producers and consumers respectively.

It will be noted that the recommendations do not include any special provisions in favour of independent inventors and of small-scale research and innovative organizations. This does not reflect a view that such inventors and organizations do not require special encouragement; on the contrary, in the light of the circumstances of the Canadian economy and the past history of many promising Canadian inventions, they could well be said to require more help here than elsewhere -- certainly more than in the United States, where there are many quite striking case histories of imaginative financial backing for relatively unknown innovators. But this kind of help -- the kind that small-scale

Canadian inventors and innovators seem most to need at this juncture -- cannot be provided through the patent law itself, in part because that law must be essentially nondiscriminatory in its application in order to comply with the International Convention and to ensure that patented Canadian inventions receive reciprocal protection abroad. What seems most urgently called for at present is better "follow-through" -- the provision of better financial backing, advice and development assistance for promising Canadian inventions which have been patented, but which still have to go through the later stages of the innovative process and may well also have to prove their legal validity in the courts. No patent policy as such, but other kinds of policy in support of innovation would seem to be the most relevant instrument here.

Knowledge of the patent law among small-scale inventors and innovators could well be better than it is, and this could be effectively promoted by private bodies as well as governments. For example, the quite remarkable findings of the Royal Commission on Farm Machinery regarding the mechanical inventiveness of Canadian farmers should lead farm organizations to consider doing more to acquaint their members with procedures for obtaining a patent in Canada, defending it in the courts if necessary, and getting the invention which it covers fully developed.[1]

Our recommendations also do not include any special provisions to ensure that individuals who can be identified as having made a specific contribution to a particular patented invention while working within a company are suitably rewarded. It is our impression that large companies with major continuing research programs are usually able to discern why, in their own self-interest, if they wish to retain and encourage unusually creative individuals on their staffs, they should take care to provide appropriate incentives and rewards to such individuals. If, however, it should come to light that a significant number of Canadian

---

[1]A. G. Vicas, *Research and Development in the Farm Machinery Industry*, Royal Commission on Farm Machinery, Ottawa, Queen's Printer, 1969.

companies are falling down in this regard, consideration might well be given to appropriate adaptation to Canadian circumstances of certain provisions of the West German patent law regarding rewards to individual inventors working within corporate organizations.

It is difficult to say what the total effect of the recommendations would be on the total amount of patent working and innovation, whether based on domestic or foreign inventions, that takes place in Canada. Conceivably, it could be fairly small, since the working of patents in Canada would not be encouraged where such working was not internationally competitive. As long as a patent can be obtained in all of the markets where it could be significant, the patent system as such offers no effective encouragement to a patentee to produce in any particular country. On the other hand, the readier availability of compulsory licences might well bring forward more licensees able to work those patents in Canada that could be worked on a competitive basis. There would probably be some anticipation of compulsory licences. Knowing that such licences would become available after five years, some patentees, including international companies with subsidiaries in Canada, might issue early voluntary licences with a view to getting licensees effectively and efficiently operating in the Canadian market in order to discourage later challengers. Where working in Canada was seriously contemplated at all, the tendency of the revised system which we propose would be towards getting it under way earlier. Where the changes were effective in reducing the prices of producer goods -- i.e. of patented items used in the manufacture of further goods in Canada -- Canadian manufacturing costs would go down and some industries might be able to improve their domestic and international competitiveness.

It is also difficult to be certain about the effect of the proposals on research and development in Canada, but as with the expected result in manufacturing, the net effect might well be small. The reason for expecting this is that the International Convention prohibits grants of patents based on nationality of either the inventor or the location of his research. Therefore, these proposed patent changes do not affect the relative pattern of incentives to do research in Canada or elsewhere. Research locations are typically chosen for reasons other than the level of patent protection, and these other reasons will continue to

be the major influences on the amount of research done in Canada. This situation is likely to prevail so long as patents on the fruits of Canadian research are available as market protection devices in other countries as well as Canada.

It must be appreciated that as a means of encouraging research and innovation in Canada on an internationally competitive basis, and on the basis of highly effective use of scarce productive resources in this country, the patent system has important limitations and drawbacks. In particular, raising the basic "level of protection" in the Canadian patent system would, in our judgment, tend to have a negligible impact on the extent to which research is done here or the extent to which Canadian patents are worked in Canada. Most of the impact of the change would be on foreign holders of Canadian patents and would likely consist of some raising of private international trade barriers around Canada and higher average prices in this country of products -- be they producer or consumer goods -- covered by Canadian patents but manufactured elsewhere. The actual location of research and production would doubtless continue to be determined largely on the basis of such factors as relative research and manufacturing costs in various countries.

To the extent that it is desired to encourage specifically *Canadian* research or innovation, or particular kinds of these activities in Canada, the patent system therefore has a significant, but limited, role to play. Other policy instruments are likely to be more effective in this role -- instruments such as tax incentives,[1] subsidies, and a wide range of other government and private policies supporting entrepreneurial activities, good management, risk-capital financing, market development and expansion, and so forth. Good innovative policy embraces many different policy instruments, and the important thing is to achieve an effectively working mixture of all such instruments.

---

[1]Economic Council of Canada, *A General Incentive Programme to Encourage Research and Development in Canadian Industry*, Ottawa, Queen's Printer, 1965.

PROTECTION OF COMPUTER PROGRAMS

Computer programs are one of the most rapidly proliferating information products in the world today. They illustrate to an extreme degree one broad characteristic of information production -- that it is the province of no single, easily identifiable industry, but is undertaken by a great variety of industries, institutions and individuals. Some programs are indeed produced by specialized "software houses" and by the software divisions of diversified manufacturers of computer hardware, but a great many more are turned out by computer users for their own purposes. A great many, too, are authored jointly by users working together with the representatives of hardware and software companies, or of computer utilities. Governments, educational institutions and other non-commercial bodies have been especially noteworthy user-generators of computer programs.

In the early, heroic days of the computer business, when a program that really worked was a rare and splendid thing, most program writers tended to be a closely co-operating, eagerly information-exchanging band of brothers. More recently, this tendency appears to have lessened somewhat in favour of more proprietary attitudes, partly because of the rise of independent software houses and because of the action of a major U.S. hardware manufacturer (possibly undertaken to forestall antitrust problems) in "unbundling" and selling separately programs that had previously been made available as a "free" service attached to the hardware. Nevertheless, a great volume of nonproprietary information exchange about programs still seems to go on.

On the basis of current levels of activity, particularly on the production side, this would hardly seem to be a sector of the total information system standing in great need of state-provided incentives in the form of patent or copyright protection. Some demand for such protection has, however, arisen, a good deal of it from software houses.

It may be noted for a start that, even as things stand, commercial software sellers are not without some practicable means of protecting their merchandise from unpaid appropriation. By leasing instead of selling programs, they may bind contractually their customers

from passing on programs to others. In addition, programs may be so devised (and have already been so devised) that they can be used without revealing their full logical structures to users of the output. Programs may also be devised so that they will only operate on a particular kind of machinery, or even on a particular piece of a particular kind of machinery. Finally the law of trade secrets has some bearing on the situation. Persons being hired by sellers of software may quite properly be asked to sign contracts binding them not to divulge information in a way that would damage the employer, even if (and in some cases, especially if) the employee had since moved to another firm.

All this, however, raises the question of whether patent protection might be desirable, not so much as an incentive to more production of programs as an incentive to more disclosure of them, with resulting reductions in duplication of effort. Before taking any such step, the usual consideration of the social costs of the patent system would have to be gone through and related to the expected benefits. The disclosure benefits to be chiefly aimed at here would seem to be highly problematical, in large part because of the great volume and variety of program-producing activity. Many people face essentially similar informational problems; as a result, many computer programs closely resemble each other, although this does not necessarily signify great duplication of effort, since, as some would-be users of "canned" programs have found to their cost, a large proportion of the "debugging" and other work involved in program creation often occurs at a relatively late stage of applying general programming ideas to specific problems. But the outward similarity of many programs would make the establishment of novelty for patenting purposes very difficult. The Patent Office would have to be provided with rather substantial funds in order to attract from a particularly tight labour market new examiners knowledgeable in computer programming.

Patent protection in this area would also be unusually difficult to police. Many combined user-producers of programs, previously disposed to discuss freely with others their problems and achievements, would be under strong inducement not to spend valuable time in discovering whether their creations might be infringing, but instead to keep quiet and go ahead and

use their programs with little risk of detection.[1] Their consciences would be much salved by the thought that they had not slavishly copied but had instead unconsciously duplicated. In this and other ways, society might well end up on balance with less disclosure rather than more.

We conclude, therefore, that patent protection of computer programs would not be appropriate in Canada at the present time. What of copyright protection? This would seem to raise many of the same problems as patent protection, and others besides. It would be even more difficult to police, and would offer little effective protection, and therefore incentive, to program producers. It might very well reduce rather than increase the public disclosure of programs. Copyright essentially protects form of expression, but computer programs are designed primarily to be used rather than to be expressed and widely disseminated in the kind of broad public market place where copyright infringement may easily be detected.

As to international aspects of this question, it may readily be deduced from the above that we would not favour Canada's taking any sort of world lead in extending patent or copyright protection to computer programs at this time. But even if other countries did extend such protection, there might still be good practical reasons for Canada not to follow them. Except where complex chains of international effects make it in their own interests to do so, Canadians are not obligated to adopt the ill-advised policies of other countries, or policies that, while they might be in the interests of other countries, would not make sense in Canada.

The computer-programming picture in Canada is of course a rapidly changing one and should be kept under continuing observation in order that policies affecting it may remain appropriate. Widespread disclosure of computer programs is obviously socially desirable, particularly in a country that has as much to gain from the information revolution as does Canada, and one step

---

[1] A computer program is analogous to a process invention used to produce a product that could also be produced with other processes, and where it is not possible to tell from the final product which process was used.

might be taken immediately to encourage it. This would be the publication and distribution by the federal government of a periodically updated catalogue of its own computer programs of general utility and of the programs of all other producers who wished to be represented in the publication. What would be disclosed and described in the catalogue would not be the programs in their entirety but rather their applications -- what they were capable of doing. The names and addresses of the program producers would also be given so that interested subscribers could get in touch with them. For commercial software sellers and for those anxious to engage in the barter exchange of programs and programming ideas, this would amount to free advertising provided by the federal government. Such subsidization might, however, be a justifiable use of public funds in the present stage of the computer art.

CHAPTER 6

INDUSTRIAL DESIGN

Good industrial design, as conceived by those who care and think about it a lot, is many things. It is a prime contemporary medium of individual and collective artistic expression, and for the establishment of national cultural identity. It civilizes and improves the visual, tactile and other qualities of the environment in which people spend their lives. It is a source of consumer satisfaction. It adds to the safety, usefulness, economic value and saleability of products in both domestic and export markets.

Industrial design is part of the total innovative process, and for best results should be thoroughly integrated into that process from the very start. But in the present state of industrial civilization, it also is an informational, teaching and missionary activity to which resources are committed in the hope of more complex, longer-term private and social returns. To say that there is a great deal of bad industrial design (or non-design) in Canada and the rest of the world today, and that not only the environment but also public taste has been seriously debased by it, is to express a value-judgment -- but a value-judgment that has been frequently expressed before and widely accepted among people of taste, discernment and practical knowledge in the field of industrial design. Under the circumstances, good industrial design may be depicted to some extent as an acquired taste, like a taste for olives or good music, that has to be taught and learned. Once it has been learned, however, there can be important economic and other pay-offs.

To a degree, a taste for good industrial design can be taught by publicity and by various educational methods of verbal and visual presentation. But the best way of all is for the consumer actually to experience good design and to learn its virtues through use. The most effective method of teaching, therefore, is to get more well-designed products into the market where people may conveniently see and buy them, or in the case of government-supplied "public goods", to make them widely available for convenient general use and appreciation. The demand thus stimulated will tend to feed back on

the productive and distributive process so that more well-designed products are made, distributed domestically and exported. To get this mechanism properly into action, however, requires sufficient public exposure to good design in the first place, and this in turn requires educational efforts directed towards manufacturers, governments and distributors as well as consumers.

The very idea of an "industrial designer" would have seemed strange to the people of the high Middle Ages, who nevertheless produced some of mankind's supremely successful marriages of form and function. In those days, and notwithstanding the divisions inherent in the guild system, the boundary lines between artists, craftsmen and manufacturers tended to be blurred, with one man's abilities often embracing all three functions. The figure of the alienated artist, in full revolt against industrialism and all that it appeared to represent, was much more an outgrowth of nineteenth-century romanticism and of the aesthetic and other horrors of early mass production.

One of the most vital and influential of twentieth-century ideas, originating above all in Germany during the tragically brief but remarkably productive cultural flowering of the Weimar Republic, was the belief that this divorce between art and large-scale industry was totally wrong and unnecessary -- not in the interests of either party, and still less in that of the public. In the *Bauhaus* during the 1920's and early 1930's, artists, architects, designers, craftsmen and production engineers worked together as integrated teams. Some of the results of their work are still appreciated and widely bought today; others have gone the way of interesting but unsuccessful experiments. The really important survival, however, has been the *Bauhaus'* underlying concept of a union of artistic and industrial skills, which is responsible in no small degree for the combined commercial and aesthetic success of much European industrial design in the post-Second World War period.

The concept has also been imported into North America, but even today, it has not yet been as fully understood and applied. Much American industrial design has, of course, enjoyed commercial success -- some of it on a gimmicky, short-term, early-obsolescence basis, but a good deal of it also for somewhat better reasons. On the functional side, one of the major strengths of

American product design has been an understanding that a simple, rugged, easy-to-maintain product may well be economically better than a more technologically sophisticated and exciting item that delivers greater "efficiency" in a narrow engineering sense, *but only if it is carefully operated and maintained by skilled persons*. Even in 1908, there were many more advanced and "efficient" automobiles about than the Model T; the greatness of Ford's design was that his product could be run and looked after by quite ordinary people, and to this day, and notwithstanding Mr. Ralph Nader and widespread consumer complaints that cars are not as durable or otherwise as reliable as they used to be, one of the significant virtues of the typical American automobile, relative to most of its international competitors, is the amount of inadequate servicing and even outright neglect that it can stand.

It must also be conceded that American industrial design has achieved a major aesthetic predominance in certain particular fields such as aircraft, computer hardware and communications equipment.

But all this having been said by way of qualification, it remains true that the *Bauhaus* vision of industrial design has still to be properly appreciated on this side of the Atlantic. In too many areas, including automobile body shapes, the concept of industrial design employed in product creation has palpably been a rather superficial and skin-deep affair -- an extraneous styling and packaging job that has involved relatively little struggle with the deeper issues of what the product is supposed to do and how its form may best be related to the human beings who are going to use it. Too often, the North American industrial designer has been a relatively late and low-status participant in the innovative process, called in to "gussy up" the product after the engineers and marketing experts have made their basic decisions. In the more successful European cases, by contrast, the designer has tended to be a full and respected member of the creative team from the start, absorbing a thorough knowledge of many of the production and marketing problems, and consequently able to make his own distinctive contribution more telling and useful.

Once again, these opinions, though drawn from experts in the field,[1] must be said to involve many non-economic value-judgments. But it may also be said that a great many non-experts are clearly far from satisfied with the visual and functional qualities of the North American urban environment, in the creation of which industrial design or the lack of it has played such an important role.

Canada is to a large degree a part of this continental picture, not only because of her heavy imports from the United States, but also because a significant proportion of her own domestic output is originally designed in the United States. This decreases somewhat the opportunities for improving Canadian design by domestic action. Nevertheless, there is scope for new policy initiatives, and some have been forthcoming. These have included an improvement and expansion of the activities of the National Design Council, new government financial assistance to industrial design activity, and the assumption by the federal government of a responsibility to set a better design example in such things as the furniture on its premises and in other governmental hardware. Much obviously remains to be done, on these and other fronts. One particular need is to improve the education of designers in Canada so that they will be better able to work effectively in the Canadian industrial environment, and then to educate Canadian industry to make more and better use of the resulting design graduates.

In this total policy picture, clarification and improvement of the design registration law occupies a relatively minor, but not negligible, position. It is the main topic of this chapter, although as elsewhere in the Report, every effort is made to keep it well related to the broader policy context.

---

[1]See especially the brief and testimony of the National Design Council before the Senate of Canada, *Proceedings of the Special Committee on Science Policy*, No. 64, June 17, 1969.

DEFINITION OF INDUSTRIAL DESIGN

As will shortly be seen, the definition of "industrial design" and "good industrial design" is no mere intellectual exercise but a considerable legal and policy problem. It is necessary to specify "good industrial design", because industrial design policy, as presently (and in our view, correctly) conceived in Canada, is partly a teaching activity in the broad sense, and because it is obviously not the purpose of the policy to encourage every sort of minor "gimmick" and styling trick that may help to sell a product. Rather, it seeks to promote the development of product characteristics that provide deeper and more lasting satisfactions to users and others.

A leading Canadian architect and designer has furnished a useful working definition of good industrial design as follows:

> "Design is guided by certain precepts first put forward some 2,000 years ago by the Roman architect Vitruvius, when he said that good design should consist of three things, Commodity, Firmness and Delight. To paraphrase: good design should consist of quality in function, or commodity -- quality in fabrication, or firmness -- and visual quality or delight."[1]

This is not a prescription that can be written directly into a design registration law. Nevertheless, one of the major recommendations here will be that the law should come a good deal closer to the prescription than it now does.

THE PRESENT LEGISLATION

The present Industrial Design Act does not even include a definition of industrial design. The relevant jurisprudence has been confusing, ambiguous and a source of much uncertainty.

---

[1]John C. Parkin, testimony before the Senate of Canada, *Proceedings of the Special Committee on Science Policy*, *op. cit.*, p. 7733.

The basic incentive philosophy embodied in the law appears to be very similar to that of other industrial and intellectual property laws, i.e. to provide legal protection to an output which is easily appropriable by others without compensation to the originator, and hence to encourage more investment in a certain kind of knowledge production and innovation than would otherwise take place. Much skilled labour, time and other resources may be employed in the creation of a design, and if the public deems it to be a good one, then the originator can reap a larger reward in the market than he might receive if there were no proprietory right in the design. As in the case of copyright, the protection goes to the shape or form, although the protection is more like patent protection in that it is only available after a review for newness in the Register and formal registration. The term is different, being initially five years, with an extension for another five years available upon application to the Commissioner of Patents.[1]

In some ways the Act is a residual member of the family of laws affecting intellectual and industrial property, inasmuch as it applies to certain aspects of products that are not covered by patents, trademarks, or (in some ways) copyrights. But it can also be deemed to have purposes beyond that of mere gap-filling -- to aim at promoting specific product characteristics desirable in themselves. There is little evidence to indicate why the term of protection was made so much shorter than for patents and copyrights, but various rationales can be postulated, such as the lower cost of some (though not all) investments in new design, and the more ephemeral character of some (though again not all) design innovations as compared with those covered by patents or copyrights.

The legislation gives to the successful applicant for registration an exclusive right "... to make, use and vend such design within and throughout Canada or any part thereof...." or to authorize its

---

[1]It is partly because the role of the present Commissioner of Patents clearly extends into the other areas that we recommend the new administrative structure proposed as the first recommendation of Chapter 5.

use in whole or in part by others. Along with this goes the right to prevent others from using the design, or a fraudulent imitation of it. It is clear from this that industrial design registration involves the same type of payment of economic costs for benefits as do patents and copyrights. There is a power to restrict domestic use, to divide markets within Canada, and -- through the right to control sale -- an implied right to restrict imports of products embodying the design. Thus, like other intellectual and industrial property laws, this Act effectively sets up certain barriers to both international and domestic trade. This cannot now be remedied by compulsory licensing of designs, since unlike the patent and copyright laws, the present legislation contains no provision for any such licensing. However, the shorter term of protection should be kept in mind in evaluating the effect of this feature, along with the often more ephemeral quality of the style component of a design.

The exclusive right belongs to the design's author, unless he is in the employ of another, in which case the employer gains proprietorship of the design. However, some good designers are known to arrange for bonus schemes or assignments if they produce highly saleable designs.

Not only in Canada, but also in the United States and Britain, the history of design legislation has been a confused one. Somewhat like an orphan in search of a family, industrial designs have, in the United States, been coupled with patents (design patents), in England with copyright, and in Canada initially with trademarks (and until 1952 also with union labels). Now they have their own statute, although even that must be read in conjunction with the Copyright Act to be comprehended. These effective interrelationships among the laws and their administration indicate why the revisions need to be co-ordinated so that inconsistencies do not develop from independent statutes.

The first design protection legislation in Canada was passed by the Province of Canada in 1861 and was based on a British Act of 1787. Commenting on the first Canadian Act, Fox[1] notes a unique quality of the first Act:

> "Section 11 of that Act gives the one and only definition of a 'design' to be contained in any Canadian legislation. That section declared that it was advisable to make provision for the copyrighting, protecting and registering of new designs whether such designs may be applicable to the ornamenting of any article of manufacture, or any substance, artificial or natural, or partly natural and partly artificial and whether such design be so applicable for the pattern, or for the shape, or for the configuration, or for the ornament, or for any two or more such purposes, and by whatever means such design may be so applicable whether by printing or painting, or by embroidery, or by weaving or by sewing, or by modelling or by casting, or by embossing or by engraving, or by staining, or by any other means whatsoever, manual, mechanical or chemical, separate or combined."

After Confederation, very similar legislation was passed by the Dominion Parliament, except that the definition of designs was omitted. In 1879, the five-year term provided in the earlier legislation was made renewable for a further period of five years, and in 1891 the Exchequer Court of Canada was given jurisdiction over the legislation. In 1906, the Act was consolidated as the Trade Marks and Design Act. In 1932, the trade-mark provisions were repealed and replaced by the Unfair Competition Act, while the sections relating to industrial designs were left unchanged. Finally, in 1952, the

---

[1]Harold G. Fox, Q.C., *Brief* to the Royal Commission on Patents, Copyright and Industrial Designs on behalf of the Board of Trade of the City of Toronto. See Royal Commission on Patents, Copyright, Trade Marks and Industrial Designs, *Report on Industrial Designs*, Ottawa, Queen's Printer, 1958, p. 8.

design sections were incorporated into the so-called Industrial Design and Union Label Act, which is the legislation in force today (although the sections on union labels were replaced by provisions in the Trade Marks Act in 1953).

Not all designs are registrable. The applicant must declare that the design was not to his knowledge in use by someone other than himself at the time he adopted it, and the Minister must only register designs he considers new within the terms of the Act. Thus revitalizations of old styles are not intended to be subject to protection. Strictly interpreted, the task of examination and registration is a sizable one, yet the office now has a staff of only five examiners who processed 1,282 applications which yielded 902 registration approvals in the fiscal year ending March 31, 1969.

Design protection is only valid if actual registration occurs within one year of publication in Canada. Since there is no definition of "publication" in the Act, it has been common practice to use the Copyright Act provisions regarding "commercial offering to the public" as a guide.

As already indicated, a major problem in this law is that of definitions and meanings. The Industrial Design Act is effectively intermingled with the Copyright Act, and vice versa. Section 46 of the latter Act excludes copyright in many works eligible for industrial design protection which makes the applicant partly responsible for choosing protection under one Act or the other. However, for further elucidation of the meaning of Section 46, one must turn to the Industrial Design Rules, rather than the Industrial Design Act itself, and find that the matter referred to in Section 46 of the Copyright Act may be "... a model or pattern to be multiplied by any industrial process ... where the design is reproduced or is intended to be reproduced in more than 50 single articles..." or "... where the design is to be applied to (i) printed paper hangings, (ii) carpets, floor cloths, or oil cloths manufactured or sold in lengths or pieces, (iii) textile piece goods, or textile goods manufactured or sold in lengths or pieces, and (iv) lace, not made by hand". These are clearly not satisfactorily enlightening provisions for contemporary purposes.

The Act itself gives little or no guidance to the meaning of such things as "design", "industrial process", the relevant time for the "intent" to make more than 50 copies, what constitutes "publication", etc. It is no wonder that it has been called a mere "cut, paste and renumber" of the remnants of the old Trade Marks and Design Act. As long ago as 1928, Mr. Justice MacLean, late President of the Exchequer Court, said "The scope of this part [the definitions] ... of [the Act] ... is difficult of definite ascertainment or construction. It is a piece of legislation that seems flimsy and incomplete, ill adapted for its intended purposes, and is in serious need of amendment."[1] Three decades later, in 1958, the Ilsley Commission suggested that it would be a waste of time to discuss the Act in detail and that a completely new law and a new approach were necessary. Essentially the same view is reached here, but it is nevertheless helpful to review briefly some of the major jurisprudence under the Act.

Among the more important court findings to date on the question of the definition of "design", there may be perceived a sort of semantic circle. In some cases, two-dimensional objects and three-dimensional objects were distinguished as designs. Among the more significant terms that have been used are "pattern", "ornamentation", "configuration", "shape", "arrangements", and several other synonymous expressions. The employment of some of these terms was associated with court decisions where only attachments to other objects were considered subject to protection, and later only where these attachments were original and intended to please and be judged by the human eye. It was only by the 1960's that shape and configuration were somewhat clarified as characteristics to be protected by the law.

It is useful to note that there has been no apparent intention to make artistic merit (by whatever standard) relevant. Neither has there been any apparent intention to let the object to which the design registration applies have special protection under this law, but

---

[1]Royal Commission on Patents, Copyright, Trade Marks and Industrial Designs, *Report on Industrial Designs*, *loc. cit.*

only the design itself. Thus, if the design is dictated by the object's function, it is not registrable. This is a noteworthy point, inasmuch as it seems to run clearly counter to most thinking about the blend of form and function that constitutes a "good" industrial design.

The meaning of "originality" is also subject to various interpretations. Section 4 of the Act provides that, in applying for registration, the proprietor of a design must deposit with the Minister a declaration that his design was, to his knowledge, not in use by any other person at the time he adopted it. The originality of the design may be found to lie in the application of the design, rather than in the design itself. At the same time, to be original a design must be substantially different from what has gone before it. However, the fact that only small variations may be found between a new design and an old one does not necessarily mean the new design cannot be registered. Nor does the whole design need to be original -- only partial originality is sufficient for registration, as is an original combination of old features. Finally, what receives protection is the whole of the particular design for which registration is granted. This permits someone else to incorporate one or more of the original features of the design into a different design -- unless, of course, the proprietor of the first design makes application for the registration of each distinct original feature.

Confusion is only partly reduced by examining those kinds of design which are *not* eligible for registration. Among these are designs where a feature is imposed on the design because it plays a necessary part in the function of the article to which it is applied, designs involving ordinary trade variations, and designs relating to methods of manufacture. Neither is the colour registrable, nor the design of buildings.

Another problem arises from Rule 11 of the Industrial Design Rules, whereby an item becomes an "industrial design" subject to up to ten years' protection when it "... is intended to be reproduced..." in quantities exceeding 50. For certain items such as stamping dies in an automobile factory, this is not a difficult problem. But for otherwise copyrighted art objects that later become used as models for multiplication (e.g. paintings that become greeting cards),

the confusion can be great. In such cases, there is normally a copyright to start with, but the timing of the intention to make more than 50 copies may deprive the designer of that protection. As things stand, a copyright, a design, and a trademark do not always appear to be mutually exclusive, and there can exist confusion of dominant law in some cases. From an economic standpoint these legal relationships appear quite arbitrary.

The present uncertain state of the legislation need not be further elaborated. No doubt a law of this kind can never be entirely precise, but some diminution of confusion is possible and the policy recommendations presented later should help to bring this about within a clearer conception of the public interest in good industrial design.

For all its deficiencies, the present Industrial Design Act is used by some designers. The table below gives statistics of design registration in Canada over the last decade. The marked increase in applications since the early 1960's may have been the result of the Exchequer Court decision in the case of *Cimon Limited v. Bench Made Furniture*, which appears to have had the effect of broadening the criteria for infringement to cover more of the essence of the external form of articles. It should be noted, however, that while registrations granted also rose noticeably in the latter part of the 1960's, the proportion of successful applications fell somewhat.

Table 6-1

INDUSTRIAL DESIGN APPLICATIONS, REGISTRATIONS, RENEWALS AND ASSIGNMENTS

Fiscal Year Ending March 31	Applications	Registrations	Renewals	Assignments
1960	812	790	185	156
1961	832	795	260	149
1962	750	684	321	224
1963	892	788	252	188
1964	881	814	292	219
1965	1,021	846	366	213
1966	1,217	1,030	422	241
1967	1,268	1,088	345	382
1968	1,384	1,197	408	406
1969	1,282	902	338	260

Source: Department of Consumer and Corporate Affairs, *First Annual Report* for the fiscal year ended March 31, 1968, and *Annual Report*, 1968-69.

A review of the Register of Industrial Designs for 1968 indicates that a fairly small number of industries are the major users of the system. These industries, classified by product and ranked in order of number of registrations are: furniture; packaging and storing; games and toys; electrical equipment including appliances; household articles; apparel; and bottles. The first item, furniture, accounts for about 10 per cent of the total while the rest of the group listed accounts for about 33 per cent of the total. Except for furniture, no single category exceeds 5 per cent of the total registrations, and about half of the product groups for which lists are made had no registrations in 1968.

Data published by the United International Bureaux for the Protection of Intellectual Property indicate that, in 1969, Canadian residents accounted for only about one-third of Canadian registrations granted. There are approximately 7,000 designs currently registered and outstanding in Canada.

INTERNATIONAL TREATY PROVISIONS

Canada, as a member of the International Treaty for the Protection of Industrial Property (the Paris Convention as revised to the Berne level) and the Universal Copyright Convention, is not obligated to grant industrial design registration. However, since we do grant registration, we must meet certain obligations. The treaties prevent us from discriminating on the basis of nationality among the Conventions' members and obligate us to allow priority of six months to other nationals (i.e. disclosure elsewhere within a six-month period does not count as prior disclosure in Canada). The Conventions make a distinction between "works of art" and "works of applied art", and while the difference between these is not specifically defined, it does affect certain treaty obligations. If "works of applied art" were treated as "works of art", then Article 2(4) of the Rome Revision of the Berne Convention and Article IV(3) of the Universal Copyright Convention would apply, and the minimum term of protection would become 10 years. Later we suggest that only one five-year term be adopted for registered industrial design protection. Thus we are in agreement with the Ilsley proposal that says any statute revision should be clear enough to avoid the treaties' 10-year minimum term.[1] This will, we anticipate, only involve careful wording of the statute to try to by-pass the ambiguity of the treaties' terminology.

GUIDELINES FOR RECOMMENDATIONS

The general rationale for having a broad industrial design policy in Canada has already been stated, together with an assessment of the inadequacy of the present design protection law in relation to this rationale. The statute does not define "industrial design" let alone "good industrial design", and this is a critical weakness. What kinds and

---

[1]Royal Commission on Patents, Copyright, Trade Marks and Industrial Designs, *Report on Industrial Designs*, *op. cit.*, p. 6.

amounts of resources have to be invested -- to what sort of outcome must they give rise -- in order for one to say that industrial designing has occurred? When does a design amount to a substantial improvement in a product, likely to enhance consumer satisfaction, and when is it a trivial piece of product differentiation whose main effect may be simply to insulate the producer a little more from the pressures of his competitors? Neither economics nor aesthetics, in their present state, provide wholly satisfactory operational answers to these questions, but they do point the way to some improvements.

To a considerable extent, Canada and other countries desirous of encouraging industrial design activity have used subsidies, design awards and other such policy devices that in effect compel the settlement of most of the awkward definitional questions on a basis of the best available judgment. For example, bodies making design awards typically operate within broad legislative criteria, which leave it largely to the individual judges to decide what constitutes an industrial design and when such a design is a "good" one.

There seems to us no real alternative to continuing to rely quite heavily on this kind of approach. Generally, we suggest that Parliament, in legislating in this area, spell out its intentions as clearly as possible; that appointments to the relevant decision-making bodies be made with care, and with a view to obtaining a good blend of aesthetic judgment, industrial experience and consumer representation; that decisions as to awards and subsidies be widely publicized, with considerable emphasis on visual publicity. Also, the terms of individual appointments should be relatively short, since informed views on many aspects of industrial design, including those particular areas of industrial design in Canada that most need strengthening, are certain to change quite rapidly, and these changes should be reflected to some degree in the personnel of award-giving and subsidy-granting bodies.

In view of the many problems that have been associated with industrial design registration in Canada, we have given serious consideration to whether this particular policy device might not well be dropped from the mixture of governmental instruments to encourage industrial design activity in Canada. In the end,

however, we have decided that it can be sufficiently refurbished as to play a useful if limited role. Two considerations in particular have influenced us in reaching this decision. One is the desirability of preserving some measure of international reciprocity so that Canadian-designed export products will be certain to be treated equally with others in countries that emphasize design protection. The other is the desirability of providing some incentive to design activity which, though later judged acceptable by the market test, did not yield products in accord with the standards of taste and utility being used currently by those charged with distributing awards and subsidies.

We envisage a modest number of designs receiving property protection, based on more precise and up-to-date definitions and criteria and applying to a range of products not greatly different from the range for which design registration has been sought in the past. Though for some purposes it is appropriate to define industrial design in very broad terms, to do this for purposes of registration, even if there were a certain legal logic to it, would risk tying up large sectors of the economy in a maze of new and highly litigable property rights. The costs of this would not, in our judgment, be worth the benefits. Therefore, the concept of industrial design embodied in our recommendations affecting registration is a relatively narrow one, which differs from the present definitions more in its basic concept than in the range of its practical application.

SPECIFIC POLICY PROPOSALS

The key policy question concerns the optimal mix of industrial property protection, design awards, and subsidization policies to achieve the output of design that will best serve Canada's long-term economic interests. Since the present policy mix is judged to be inadequate, especially its registration component, a new policy mix is suggested. The general proposal is to expand the use of incentives other than registration, and to make the qualifications for registration more in accord with the basic background philosophy of encouraging better Canadian designs for both domestic and export consumers. What should not be encouraged by any statute

or policy is mere superficial ornamentation or "gimmickry", although unfortunately legal definitions in Canada and other countries have tended in the past to place emphasis here. The present proposals are intended to get closer to the heart of "good design" and to avoid the largely residual protective role that has been assigned to the industrial design law to date. They attempt to conceive of design in a twentieth-century context and to get away from nineteenth-century "ornamentation".

Administration

The first problem is the definition of a design suitable for registration. As was noted earlier, the present Act permits registration of designs that are intended for production of over 50 items, that have not been registered before, and that are effectively detached from the function of the article. It is evident that these criteria are confusing to the courts and to the users of the law and are out of tune with the aims of good design. Thus, for the purposes of reviewing designs for registration as industrial property, a new manner of decision-making ought to be instituted that will alter both the kinds of decision-makers and their criteria.

It is proposed to have an Assistant Commissioner for Industrial Design (under the Commissioner for Intellectual and Industrial Property). He would have recourse to a Design Advisory Board which would include persons expert in the area of industrial design, balanced by a group of consumer representatives to ensure expression of the broader public interest in this area -- and we would suggest a full-time chairman. Aided by the Board, the Assistant Commissioner would decide whether or not a design was registrable under the law for industrial property protection.

Grant of Registration

The criteria for a grant of registration would be that the Assistant Commissioner be satisfied that the design is:

(a) truly "new and innovative";

(b) a meritorious marriage of both function and form likely to improve substantially "consumer welfare";

(c) embodied in an article intended for such industrial use or commercial distribution to the public as would effectively separate it from copyright protection.

The meaning of the term "new and innovative" would be essentially analogous to that of the corresponding language in the patent law. That is, a registrable design should be in some sense a significant breakthrough. In their concern with function, the advisory board of examiners would be expected to ensure that the article was safe and effective in its intended use, and to make certain of this, it might, in many cases, wish to have resort to the product-testing facilities of the federal government or other bodies.[1] In their own concern with form, they would be expected to take a broad view, welcoming both advanced experiment and truly innovative adaptation and reinvigoration of older styles, without attempting to act as narrow arbiters of fashion to the nation. On that as on other points, the market test would be the real ultimate arbiter, for both registered and unregistered designs.

The criterion of mixing form with function would be an attempt to aim at the essence of good design and to avoid emphasis on the trivial. In many ways, this would be consistent with the basic findings of the *Cimon Limited v. Bench Made Furniture* case of 1965 in which the Exchequer Court refused to allow merely minor modifications of a unique design to permit its use by another. A critical difference from the present registration system would be that the burden of deciding what constituted a registrable industrial design would be largely removed from the courts and put in the hands of a body including among its members specialists in design. The courts would then, as in the case of patents, be freer to concentrate their attentions more

---

[1]Similar resort to product-testing should be had by bodies granting awards and prizes for industrial designs in Canada.

on questions of infringement, which for designs would no doubt continue to turn primarily on differences of external form.

Reference is also made to "commercial or industrial use" because this law is not intended to cover "works of art" which under the Copyright Act have a very much longer period of protection. While it is difficult to be precise about Part(c) of the proposed definition, one can still accept a lower limit on the number of units produced as a criterion for exclusion under the Copyright Act and opportunity for inclusion under the industrial design law. The present number of 50 units seems to be a reasonable limit, but this may need to be clarified when the Copyright Act is reviewed and could reasonably be a decision permitted to the Assistant Commissioner.

The Term

It is suggested that the renewal of industrial design registration be abolished, leaving only a single term of five years running from the date of application for registration.

Timing of Application

As is recommended for patents, a first-to-file system should be adopted for the industrial design law. Using this system, the present confusion over the meaning of the word "publication", which has been interpreted by the courts as the same as that in the Copyright Act, would be eliminated. Adoption of this system, in conjunction with wider and effective publicity to the designs, would speed up the process of making the public aware of new designs.

Infringement

The term "infringement" should mean the adoption, in whole or in part, of the design when there is proven detriment to the registered owner of any property rights granted in the design. It should not be necessary to prove actual copying. The actual penalties for infringement

convictions should be larger than at present because the current statutory rates (running to a maximum of $120) are anachronistic. Consideration might be given to the addition of penal sanctions by the court for second and subsequent infringements.

Assignment

Designs subject to exclusive rights should continue to be assignable and the registration of any such licensing transactions should be continued. Effective access by the public to these registrations is at present very inadequate, and this should be changed and augmented in order to promote wider public awareness of design registrations. Included in this publicity would be a greater use of public libraries across the country so that the public might know about designs submitted for review and those given approval for registration. Under a first-to-file system, no problem would arise for the valid applicant from this suggestion. In fact this would serve as an advertising medium for him. If no grant of an exclusive right ensues, then the designer should lose nothing by the publicity. Likewise, there should be widespread distribution of lists and pictures of designs that have been granted registration or awards, and statements or reasons for the grants. In this way, consumer, producer, and distributor interest in good design would be stimulated.

Marking an Industrial Design

The present provisions of the law require marking of registered designs, and this should be continued. But instead of the present mark "Rd" it is proposed that some more striking and distinctive symbol, accompanied by the word "Canada" and the year of filing be substituted. Penalties for false use of such a symbol should be raised to a higher level than at present.

Relation to Trademarks

Under the Trade Marks Act, there is a specific category of trademarks known as distinguishing guises. They are distinctive shaping or packaging of wares that

become registered as trademarks, and are thus eligible for perpetual registration once they have been used sufficiently long by one user as to make this design an identifiable part of his special product. While data are not available to analyse the degree to which such a product identification has been, or could be, acquired under the preliminary protection of a registered industrial design, it is considered inconsistent with the logic of a short term of protection for a registered industrial design to permit such a potential. Therefore it is suggested that no product that has been granted industrial design protection be registrable as a distinguishing guise under the Trade Marks Act until three years after the expiry of an industrial design registration.[1]

Relation to Competition Policy

The rights granted by a registered industrial design have included the right to control and restrict both domestic and foreign trade in the design-bearing good -- that is, to create barriers to trade that are generally classed as invisible or indirect. As in the patent recommendations, it should be made clear that nothing in the industrial design legislation gives a registered holder or his licensee the right to engage in practices contrary to competition policy legislation. In the case of external trade, the rights in registered designs should not include the right to restrict imports of a designed article from other countries where it enjoys design protection. Thus international price discrimination against Canada would be guarded against.

We have considered the use of some form of compulsory licensing provisions under this law in order to permit a good design to be employed in products of varying qualities, e.g. high- and low-price furniture. However, because of the very short term of protection suggested, this provision will prove unnecessary to achieve this purpose and no compulsory licensing is suggested.

---

[1]Royal Commission on Patents, Copyright, Trade Marks and Industrial Designs, *Report on Industrial Designs*, *op. cit.*, p. 33.

Relation to Other Policies

In a well-planned national program of support for industrial design, grants of exclusive rights, awards and subsidies, and certificates of general approval would all be part of the total policy mix. While it is not intended that the Assistant Commissioner for Industrial Design be empowered to make grants or subsidies for designs, it certainly should not be beyond his power to draw any designers or designs he believes worthy of assistance or awards to the attention of such bodies as the National Design Council or the Department of Industry, Trade and Commerce. In fact some form of liaison between these groups would clearly appear to be in order, although the design registration itself ought to be kept a distinct function.

CONCLUSION

We emphasized earlier that design registration is but a part of a much wider range of design policies. In the context of that broader framework we are suggesting a basic change in present policy -- one that would encourage a widening of perspective, a more integrated approach, and a wider range of social considerations. This approach is applicable to the public sector with regard to environmental features such as parks, roads and urban redevelopments, and to the private sector when developing products that require special concern for efficiency, safety, style and other marketing factors. Design is, in fact, a process that takes a multiplicity of goals into account and integrates them for an optimal solution to the particular problems at hand. This is now being encouraged in various ways by a variety of policies: governmental assistance through the Department of Industry, Trade and Commerce, educational development by institutions at several levels, and private persons in various activities such as architectural associations. What we are proposing is that the role of registration of industrial designs be put into an administrative organization that is in tune with these broader goals, and that the registration process itself take these explicitly into account. In these ways a more coherent and comprehensive total design policy can be adopted for the benefit of Canadian consumers and producers -- the users of well-designed products in their homes, their recreation and their work.

CHAPTER 7

COPYRIGHT

The British law of copyright, of which the Canadian law is a lineal descendant, began as a child of print technology and State censorship. By one of the more fortunate ironies of history, it eventually so cut itself off from its second ancestor as to become a system of incentives to idea-processing involving singularly little day-to-day intervention by the State and therefore minimal opportunities and temptations to censor. In spite of much ingenious adaptation over the centuries, however, its link to its first ancestor remains strong, and this is at the root of many of the copyright issues faced today, when the once-predominant print technology, though still very much alive, competes with a rapidly growing variety of new means for the processing and transmission of information. One major problem, indeed, is how to relax somewhat the constricting tie of copyright to its first ancestor without bringing about a reincarnation of the second. That is, great care must be exercised to ensure that the necessary evolution of the incentive system, in parallel with the evolution of technology, does not give rise to dangerous new possibilities of censorship or knowledge monopoly, whether on the part of the State or of private interests.

While traces of copyright arrangements are to be found in the records of antiquity and the Middle Ages, the real origins of modern copyright are generally dated from 1476, when Caxton introduced into England Gutenberg's printing press using movable type. This classic example of a capital-intensifying invention had a high fixed cost, by the standards of the time, but when the recovery of that cost was spread over multiple copies, the device was capable of dramatically reducing the scarcity and price of processed information. To capture a maximum return from this effect, however -- to protect their investment and obtain the full rewards of greatly expanded markets -- printers desired that their markets be safeguarded, and to this end sought help from the State, which had some informational interests of its own:

> "By making printing faster and easier, and making copies less expensive, typography greatly

> magnified the dimensions of two existing social forces. The first was the desire of printers to secure exclusive printing rights against interlopers. The second was the desire of Church and State to control heresy and sedition through the censorship of literature."[1]

There gradually developed a process of interest-trading between the State and the Stationers' Guild (later the Stationers' Company of London) -- a body whose membership came to include both printers and booksellers or "stationers", and whose activities eventually embraced, among other things, restriction of entry into the printing industry, settlement of disputes between individual printers, and maintenance of a register of printers' "copyrights". The royal charter creating the Stationers' Company in 1557 required all publications and printers to be registered with the Company, which could also register exclusive printing rights; but by a series of decrees commencing two years later, the Company in its turn was required to see that each new publication was licensed by church or government censors.

This alliance of interest persisted well into the seventeenth century, but with the political disturbances that led to the English Civil War, and with the increase in public hostility to censorship, its effectiveness began to break down. Following the restoration of the monarchy in 1660, a series of Printing or Licensing Acts attempted to re-establish censorship and control of printing, but failed of their object. The last Licensing Act expired in 1695, due, it is said, to "general disgust at the variable stupidity of the censors".[2]

---

[1] Bruce C. McDonald, *Copyright in Context: The Challenge of Change*, Economic Council of Canada background study (forthcoming).

[2] Benjamin Kaplan (Royall Professor of Law, Harvard University), *An Unhurried View of Copyright*, New York, Columbia University Press, 1967, p. 6. Kaplan's original source for this conclusion is Macaulay's *History of England*, 4, pp. 348-362 (1855).

There remained a situation of widespread "piracy" in which the ability of individual printers to enforce their alleged perpetual printing rights had been greatly weakened. This in turn affected the amounts they were prepared to pay to authors of manuscripts. Booksellers and authors now joined forces to petition Parliament for new statutory protection of exclusive rights to multiply copies of books.

The result, in 1710, was the landmark "Statute of Anne". Among the significant features of this law were: for the first time the right of multiplication of copies went initially to the author rather than the printer or bookseller; the right rested on the principle of original composition rather than the production of any new or old printed material; and the right was limited in term -- to 21 years for works published prior to the Statute and to 14 years for works published thereafter. For the right to be enforced, works had first to be registered with the Stationers' Company. The principal stated policy reasons for the legislation were the protection of the legitimate interests of "proprietors" (whether authors or their assignees) and the encouragement of "learned men to compose and write useful books".[1]

Notwithstanding subsequent statutory amendments and a rich jurisprudence (in Britain and the United States, at least), the basic features of the Statute of Anne remain at the heart of British, American and Canadian copyright law today. A few of the more important intervening changes may be noted. In 1774, the House of Lords held that the Statute supplanted the common law of printing rights, so that such rights could no longer be asserted in perpetuity but were confined to the statutory term.[2] Later, however, the statutory term was considerably lengthened in a series of steps. In the nineteenth century, a performing right was added to the right of multiplying copies, and in the twentieth century some accommodations for the new information technologies, such as wireless transmissions and

---

[1]McDonald, *op. cit.*

[2]*Ibid.*

motion pictures, have been provided. The requirement of copyright registration was dropped from the British law in 1911.

At the time of Confederation in Canada, copyright became an exclusive federal field of jurisdiction. Since then the law of copyright in this country has closely followed the evolving British model. Major enactments occurred in 1875 and 1921. The Canadian Copyright Act of 1921 took much of its substance from the British statute of 1911. It entered into force in 1924 and apart from the introduction in 1936 of the Copyright Appeal Board to supervise performing-rights societies' royalties and a few other relatively minor changes remains the law today.

CHIEF CHARACTERISTICS OF CANADIAN COPYRIGHT LAW

In outlining the salient features of the present law, it is well to begin by reiterating the fundamental principle that copyright protects the form of expression rather than the ideas expressed. Thus its main incentive goes much more to the processing of knowledge into widely accessible form than to original knowledge creation, although it may sometimes contribute a degree of subsidiary stimulation to the latter. Both legally and from the standpoint of economic analysis, this distinction proves upon examination to be less clear than it may at first seem, but it remains nevertheless a significant one, with a bearing on some of our subsequent recommendations.

The two key conditions of "copyrightability" in Canada are the existence of a "work" and "originality". The "work" must include "... a certain indefinable minimum of expense, labour, skill, judgment or imagination, expressed in a material or concrete form which is more or less permanent and capable of identification".[1] "Originality" means that the form in which the work is expressed must come from the author's own mind and that the work is not copied from another work.

The two basic types of exclusive interest protected by copyright are the production or reproduction of the work or any substantial part in any material form

---

[1] *Ibid.*

whatsoever, and the public performance of the work or any substantial part of it. Recent technological changes have rendered increasingly difficult the task of the courts in determining what is meant by "material form" and "public performance". The latter concept, in particular, has never at any time been adequately clear from the language of the statute.

The legislation enlarges upon its general definitions of protected matter by listing six particular types of activity which are included in (but not exhaustive of) the definitions. They are as follows:

1. production, reproduction, performance or publication of any translation of the work;

2. conversion of a dramatic work (e.g. a film) into a nondramatic work (e.g. a novel);

3. conversion of a nondramatic or artistic work into a dramatic work by way of public performance;

4. making a record, film or "other contrivance" by means of which a literary, dramatic or musical work may be mechanically performed or delivered;

5. reproduction, adaptation and public presentation of a work by cinematograph; and

6. communication of a work by radio communication.[1]

Effectively, then, copyright protection in Canada embraces a wide range of media and forms of expression, including books and other graphic arts, writings, sculpture, paintings, engravings, photographs, architectural works, lectures, motion picture films, dance choreography, collective works and works of joint authorship such as dictionaries and encyclopedias, and phonograph records. It also extends to derivative works such as translations, abridgments, and film or other

---

[1]See *Copyright Act*, Section 3.

adaptations of works. The most obvious omission is live broadcasting (including radio and television) which appears to escape protection mainly because of a lack of fixation in "material form". Videotapes, however, do get copyright protection because they are "recorded" and in "material form".

As under the Statute of Anne, copyright goes in the first instance to the author or other initial processor of information, but may be transferred down the line to publishers and other further processors. Initial as well as assigned copyrights may be held by corporate bodies, such as film-producing companies, and by the Crown. An intriguing but little-known fact, of significance for the development of computerized legal information systems, is that the Crown's copyright portfolio probably includes rights in statutes and in judgments handed down in the courts.

The term of protection under Canadian copyrights runs in general for the life of the author plus 50 years, but in the case of some particular items such as phonograph records and photographs the term is a straight 50 years from the time the original master or negative is made. Crown copyright in work done under government direction or control runs, under the statute, for 50 years from first publication.[1]

Registration of copyright is not an essential condition in Canada, since protection begins automatically and without formality as soon as the substantive conditions of protection are met. (One unfortunate by-product of this is a virtually complete absence of meaningful copyright statistics.) There is, however, a provision for voluntary registration, utilized by some holders because of the advantages that it confers in disputes over a work's ownership.

The statute provides for some limitations on the exclusive rights which it confers in two ways: by making provisions for statutory or compulsory licences, and by statutory defences against certain types of use considered "fair dealing" or non-infringing uses.

---

[1]This particular clause is subject to the condition that it be "Without prejudice to any rights or privileges of the Crown...," *Ibid.*, Section 11.

The licences vary with the type of work. For example, a musical work that is recorded can immediately be recorded by another producer at a statutory royalty. A book however can only be licensed if the Minister is satisfied that "the reasonable demands of the Canadian market" are not being met by domestic printers or if the author of any book has been dead for at least 25 years.[1] The importation restrictions of a copyright are not infringed by any individual importing one or two copies for his own use, by any Crown agency, or by a library or educational institution (when there is no Canadian printing of the book). The "fair dealing" provisions are mostly concerned with various uses related to news reporting and private study. The specific details depend on the type of work covered, and their complexity has caused a great amount of confusion in specific cases. Problems with these are growing rapidly in conjunction with the expanded use of new technologies for secondary multiplication of copyrighted works, by devices such as photo-copiers and tape recorders.

What is happening in practice is that an increasingly unreasonable burden is being thrown on the consciences and amateur legal expertise of such people as librarians and copying-machine operators, the vast majority of whom doubtless have no great penchant for the role of law-breaker, even in the most technical and accessory sense. We may put it that as the law stands, there is a growing enforcement problem, largely left to persons without special legal knowledge whose efforts are at best likely to produce a very uneven and therefore discriminatory result. Given the continuing evolution of technology, it is questionable whether these amateur efforts can be substantially and for long improved by simply clarifying and amplifying the "fair dealing" provision of the statute, although this is certainly worth trying. On the other hand, to introduce into the total information system a large and officious force of professional copyright police would be utterly intolerable, and other solutions must obviously be sought.

---

[1]Excluded from this provision, however, is any book written by a British subject or by a citizen of any country signatory to one of the international Conventions.

Where infringement of Canadian copyright law occurs, possible remedies include private recovery for financial loss on the part of the copyright owner, prohibition of further unauthorized copying, and even penal sanctions. Under certain circumstances, which may be roughly described as those of knowing and flagrant infringement, the copyright owner may effectively recover multiple damages.

CANADA AND INTERNATIONAL COPYRIGHT CONVENTIONS

Canadian copyright law and policy have been importantly influenced by the fact that there exist two major international copyright Conventions and that Canada belongs to both of them. Partly as a reflection of the same technological and other developments that have brought about a need to re-examine and revise the Canadian domestic law, various governments and private groups around the world have been pressing strongly for revision of the international Conventions. A period of unusually active copyright diplomacy lies immediately ahead, and the development of an appropriate Canadian negotiating position has become an urgent necessity.

In the eighteenth and nineteenth centuries, a number of countries followed Britain's lead in instituting copyright laws along the same general lines as the Statute of Anne. International co-ordination of these laws and reciprocal extensions of copyright protection were, however, longer in coming. Against a background of rapid improvement in international communications and in levels of literacy and the availability of translation skills, this left the way open for widespread international piracy of works copyrighted in their home countries. For British authors, the absence of copyright protection for foreigners in the United States was an especially sore point. Charles Dickens was a noted victim of the resulting large-scale unpaid appropriation of British works. He did, however, obtain restitution of a sort by conducting remunerative public readings of his works in the United States -- a useful reminder that many authors have a choice of media, and that if the relative rewards of different media provide an incentive to switch, they are likely to do so, even if this results in fewer consumers being reached per hour of author's time expended. (Fewer public readings might have meant an extra novel, to the

resulting satisfaction of many millions of people in Dickens' own and subsequent generations.) The Dickens' case also demonstrates, however, the important point that exposure in one market can generate additional returns in another. (The previous circulation in the United States of Dickens' works in printed form undoubtedly enhanced his reputation, and consequently the earnings potential of his public readings.)

In the late nineteenth century, the United States finally extended copyright protection to foreigners. At about the same time, the first multilateral copyright agreement made its appearance. This was the Convention of Berne, signed in 1886. It is open to all countries and has at present 58 national members. Canada is a member, but the United States, most Latin American countries, and the Soviet Union are not. In 1952, a new attempt was made, under U.N. auspices, to find common ground between members and non-members of the Berne Union. The result was the Universal Copyright Convention or "UCC". This was not meant to be a rival Convention; many countries such as Canada are members of both Berne and the UCC. The United States, however, belongs to the UCC only. The Soviet Union belongs to neither Berne nor the UCC.

The original Berne Convention was revised in Berlin (1908), Rome (1928), Brussels (1948) and Stockholm (1967). Up to and including the Brussels revisions, changes were generally in the direction of lengthening and broadening copyright protection, with a good many extensions to cover new information media. Not all members of the original Convention assented to these revisions. For example, Canada and 14 other countries have thus far remained members at the "Rome level".

The basic principles of the Berne Convention are "national treatment" (that is, the accordance by a member country to foreign authors of the same treatment that it gives its own authors) and an agreement by members to observe at least certain minimum standards of protection. Authors receive protection within the union automatically upon publication; there are no formalities to be gone through.

At the Rome level of the Convention, some protection is given to photographic works and to translations, adaptations and arrangements. Also, at the Rome level, the term of copyright is given as the life of the author plus 50 years, but individual member countries may modify this. In the Brussels revision, the "life-plus-50" term

was made mandatory, and copyright disputes between member countries were made referrable to the International Court of Justice at The Hague. These two provisions, plus an expansion of the rights of authors in public performances of their works, and an extension of protection in the fields of cinema, radio and television, were given in the Ilsley Commission Report as the main reasons for recommending against Canadian accession to the Convention at the Brussels level.[1]

The Stockholm Conference of 1967 was attended by 51 of the 58 members of the Berne Convention, but only 35 signed the revision. Among the nonsigners were Canada and Britain. (It should be noted that signing of a copyright convention or revision indicates only tentative approval; ratification must follow before any obligation arises and before implementation need take place.) Among the features of the Stockholm revision are the designation of an author's nationality as an additional basis for protection, the explicit recognition of the author's right to control the reproduction of his works, and further provisions to clarify copyright in motion pictures. Much of the time of the conference was, however, taken up by another highly contentious provision: a Protocol to the Berne Convention[2] designed to relieve less-developed countries,

---

[1]The Ilsley Commission noted that accession to the Berne Convention at the Brussels level might, or in some cases definitely would, require Canada to change some major features of her existing copyright law, and would prevent Canada from making certain changes that she might wish to make in the future. One example of a required change in the existing law would be the elimination of the section providing for a copyright licence of right on a work 25 years after the death of the author. See Royal Commission on Patents, Copyright, Trade Marks and Industrial Designs, *Report on Copyright*, Ottawa, Queen's Printer, 1957, pp. 12-16.

[2]The Protocol allows a developing country, which, "having regard to its economic situation or cultural needs, does not consider itself immediately in a position to make provision for the protection of all the rights as provided in the Act", to make any or all of five reservations to these provisions. These reservations allow for a shorter copyright term, less copyright protection of broadcasting, and more freedom to translate and to reproduce works for educational, cultural, teaching, study and research purposes.

with their acute problems of raising levels of literacy and education, from the stringent and costly copyright guarantees of the Convention while still permitting them to remain or become members of the Berne Union. This was the first time that such countries had been strongly represented at a Berne copyright meeting. Previous such meetings had tended to be dominated by countries that were heavy net exporters of information, and by national delegations containing strong representation from author, publisher and like interests. The appearance in force at Stockholm of national delegations with a noticeably different composition and viewpoint considerably changed the tenor of the proceedings.[1] Because some information-exporting countries took strong exception to the Protocol, it has not been implemented. However, an international conference is being prepared for the summer of 1971 to work on revisions of the two Conventions in order to give the developing countries some accommodation.

Another major question mark in the international copyright picture remains the United States. Some American groups have pressed for the United States to join the Berne Union, and some recent international copyright diplomacy has attempted to make it easier for her to do so. But up to the present, a major bar has been that U.S. accession would require considerable revision of its domestic copyright law. One feature of that law, highly protectionist in its effect, and of special interest to other English-language countries, is the so-called "manufacturing clause". This restricts U.S. copyright for American citizens or foreigners domiciled in the United States to works manufactured in the United States, so that foreign printers are unable to bring out new editions for the U.S. market. Foreign authors not living in the United States can obtain American copyright protection by use of a special set of identification marks on all copies.

The United States has found it possible, however, to join the less ambitious UCC, which was indeed conceived for her benefit. Generally speaking, this provides for "national treatment" only in the sense that "published works of nationals of any Contracting State

---

[1]The Canadian delegation to the Stockholm Conference was also a more broadly based one than previous delegations to such conferences had typically been.

and works first published in that State shall enjoy in each other Contracting State the same protection as that other State accords to works of its nationals first published in its own territory".

The minimum term of copyright under the UCC is life-plus-25 years for most cases, or, under specially prescribed conditions, not less than 25 years for certain classes of works. Great efforts were made at the inception of the UCC to ensure that it would not be a competitor or threat to the Berne Union. One key clause provides that no country now a member of Berne that defects from that Union will be entitled to copyright protection under the UCC from countries in both Conventions. If, for example, Canada were to denounce Berne, she would also in effect be denouncing the UCC although only with respect to countries that are members of Berne.

RELEVANCE OF NONECONOMIC GOALS

Before proceeding to recommendations regarding copyright, a word is in order about what may be termed the "noneconomic" aspects and implications of the subject. We are fully conscious that copyright relates more to the cultural and artistic side of life than does any other form of intellectual and industrial property. We gave some attention to this side of life in our broad survey of innovation and information in Chapter 2, and it has not been forgotten in the formulation of recommendations for the present chapter.

The problem is essentially one of bringing into the analysis, in some workable way, a number of the more important noneconomic goals and aspirations that appear to be widely held by Canadians, even though these goals have not yet been subjected to nearly as much thoughtful specification and systematic study as they deserve to be. What we have done on the basis of considerable, though necessarily largely impressionistic, evidence is to wrap these various goals and aspirations into one and assume that most Canadians desire for their country (full account being taken of its fundamentally bilingual and bicultural character) a strong and distinctive cultural identity. We have further assumed that, for this, most Canadians would be willing to pay some as yet undetermined economic price.

We would immediately add to this assumption an important qualification to the effect that the cultural identity sought should as quickly as possible become a sturdy and viable entity, capable of holding its own in the world without shame or inordinate special protection. A member of his creative staff once said of a certain television producer, "He doesn't want it good, he wants it Thursday." We assume that most Canadian information-users want the domestic portion of their requirements to be both Canadian *and* good. To reduce the matter to a concrete example, any decision-maker responsible for foisting upon Canadian students a third-rate textbook simply because it is written and produced in Canada should consider himself overdue for an interview with his conscience and a careful contemplation of the long forward shadow cast by the quality of education. More generally, he might think too of the points made earlier about the feedback characteristics of information flows and knowledge production. Low-grade cultural parochialism does no service to the cause of a durable and creative Canadian nationalism -- quite the contrary.

It is sometimes implied that where cultural goals are important, economic analysis, with its base associations of the market place, should take a back seat. But this involves a serious misconception of the proper and useful role of economic analysis. It may well be true that in the *final* analysis, economics is much more concerned with means than with ends, and that the really fundamental "achievement goals" of a society are largely, if not wholly, noneconomic in nature. It is also true, however, that, in practice, means can have an enormous influence on ends, whether for good or ill, and that as a result the systematic analysis of economic means is indispensable both in the specification of social goals and the planning of how to achieve them. In the case of cultural goals, among others, economic analysis can be of great help in bringing about a clearer identification of the goals in the first place, and then in planning for their attainment by the shortest, least costly and most perseverance-inducing route.

It is particularly important that the relevance of cultural goals in a policy-planning situation should not be used as a smoke screen behind which material interests and conflicts between private and social interests are allowed to shelter unexamined. In an increasingly service-oriented and knowledge-based society, cultural

matters in the broadest sense are to a growing extent what economic life is all about. They must not fail to be studied in their economic as well as their other aspects.

SOME GENERAL GUIDELINES

One fact that became very clear during the process of the research behind this Report was that the outstanding problems in the field of copyright were exceptionally numerous and complex. It was neither feasible nor within the terms of reference of the study to make specific detailed recommendations about all, or even most, of these problems. The wisdom of this course is supported by a glance southward to the United States, where 15 years of intensive effort towards copyright revision have so far failed to produce a new statute. Some of this slowness may reflect the marked American taste for policy-making via processes involving sharp adversary confrontation between the interest groups most directly affected (e.g. between performing-rights societies and record manufacturers on the one hand, and juke-box operators on the other), but it also clearly stems from the inherent difficulty of the issues.

What makes many of the issues even more difficult is that they are such rapidly moving targets. Wherever new technology is a major part of the problem, its further development may quickly render specific recommendations obsolete.

Under the circumstances, the most useful course for the Economic Council to follow has seemed to be that of placing copyright in a broad framework of economic analysis, stating some general guidelines perhaps durable enough to assist policy-makers in meeting a succession of particular problems over the next decade or so, and, on the basis of the guidelines, making a limited number of more specific recommendations where the issues have become sufficiently clarified to justify such a step. Also, suggestions are made about machinery for dealing with evolving problems under conditions of rapid and continuing technological change. The resulting guidelines and recommendations form most of the remainder of this chapter.

The general guidelines are as follows:

1. The labourer is worthy of his hire. The labour of authors and other practitioners of the art of idea-expression, together with the subsequent inputs of publishers and other essential intermediaries between the original practitioners and their public, yield outputs many of which are of enormous value to society. These employments of intellectual and other resources should be appropriately compensated so that the work will continue to go forward vigorously in the future.[1] Subject to two important qualifications, compensation should be in proportion to use and each user should pay his fair share. The two qualifications are that the system must make room for the effective operation of such institutions as libraries, which like the copyright system are a vital part of the broad, publicly sanctioned information policy of society, and that the system should be so designed as to be practicably enforceable, without excessively costly and oppressive policing, and without unreasonable intrusion into private homes and other sectors of small-scale information-processing and exchange.

It has been customary in the past to commence most discussions of copyright policy with some much simpler and more ringing statement than the above, to the effect that the author has a property right in his work and that everything important about copyright really flows from this. Repetition of such a statement may serve some purpose in steering small-scale infringers back to the straight-and-narrow path and in persuading some institutions to maintain a closer check on their use of copying machines, but as a guide to resolving contemporary problems of copyright policy it has proved, in our experience, to be a much more ambiguous and less operationally useful statement than it purports to be. Even from a purely legal standpoint, the bald concept of a property right in almost *anything* has not the iron-clad certainty and issue-simplifying power that many authors and their associates hopefully believe it to have. Some further discussion of this point will be found in Appendix A, and readers interested in copyright fundamentals

[1] It should be kept in mind, however, that many creative persons -- particularly academics -- derive significant remuneration and incentive from a variety of sources in addition to copyright royalties. This point was elaborated in Chapter 2, together with the conclusion that good policy-making in the field of information should take into account the full range of incentives.

may also find it useful to refer back to Chapters 2 and 3 in order to appreciate the conception of rights in relation to social purpose that is employed here and the very broad meaning that is assigned to the word "information".

As elsewhere in this Report, therefore, we have found it more helpful and illuminating not to *start* with the grant by governments of legal protection to certain rights, but to commence at an earlier stage and focus more on the incentive *purpose* of the grant. This does not furnish instant magic solutions either, but it is of considerably more practical assistance in picking a way through the tangled problems of copyright in relation to new technology. We must emphasize that in not making the property right of the author the centrepiece of the entire discussion, we intend no disrespect to authors and other creative persons. On the contrary, we regard the services of such people -- over the entire range, from the production of great literature to the singing of popular songs and the proffering of advice about how to grow flowers or pass a grade twelve examination -- as utterly indispensable to a civilized society. Among many other things, these unusually gifted members of the community are indeed the "unacknowledged legislators of the world", often skirmishing effectively with the ills of society and drawing attention to them well before social scientists and governments with their statistics and other heavy apparatus finally lumber on to the terrain.[1]

But for people of this sort to be effectively helped and encouraged requires a good deal more than a general assertion of rights. At the very least, the rights must be spelled out in enough detail to be applicable to an enormous variety of practical situations, and this is likely to be done better if the underlying purpose of the grant of right is kept firmly in mind throughout.

---

[1]Cf. Ellen and Neal Wood: "Perhaps this is the place to note the disturbing fact that it is very seldom 'professional' social scientists who bring attention to the most glaring problems facing American society. More often it is non-academic writers and 'dilettantes'." The authors cite the example of Michael Harrington's *The Other America* (Baltimore, Md., Penguin, 1962), which, they argue, first drew major public attention to poverty as a political issue in the United States. (Ellen and Neal Wood, "The American Science of Politics", *Close the 49th Parallel: The Americanization of Canada*, Ian Lumsden, editor, Toronto, University of Toronto Press, 1970, pp. 185-186.)

Also, the fact that copyright goes in the first instance to the author or other "original creator" must not be allowed to obscure another important point, which is that the initial copyright is more often than not assigned, in whole or in part, and that by the time the book or other information product reaches the consumer, many other people and enterprises such as publishers and broadcasters will have acquired a major economic stake in the copyright. To a degree, this is entirely as it should be: a total innovative process is involved, and not only the author's investment of his time and other resources but also that of further processors is at risk. To the extent that protection, remuneration and incentive are justified, they should apply down the line. But this also means that copyright policy cannot realistically be debated or framed as though the main impact of changes in "levels of protection" would unvariably fall upon authors and like creators when in fact a much larger financial impact, at least in absolute terms, would normally be experienced by publishers and others. In the case of a book, perhaps 10 per cent of the total impact might be on the author and the remaining 90 per cent on others. The whole picture -- the complete innovative chain -- must be kept clearly in view.

2. While the interests and views of authors, publishers and others who are closely involved with the copyright system should continue to be treated with attention and respect, it must also be recognized that technological and other developments are rapidly increasing the *general* public interest in the total information system and everything associated with it, including copyright. This general interest, embracing such matters as the desirability of maintaining ready, low-cost public access to information and minimal interference with the many complex processes by which human beings exchange ideas and other information with each other, should be adequately reflected in federal government policy-making, in the professional training and qualifications of the staff assigned to the Commissioner of Intellectual and Industrial Property, and in the composition of official Canadian delegations to international copyright meetings.

3. As recommended for other forms of intellectual and industrial property, the Canadian copyright system should be aimed as exclusively as possible at its primary incentive function. It should not be used as an economic and informational trade barrier between Canada and other countries nor be extended beyond its basic grant of right into a vehicle for practices contrary to competition policy. So far as the nurturing of Canadian cultural

identity is concerned, some features of existing copyright policy purportedly directed towards this goal appear to have been both inefficient and ineffective for the purpose, and we shall be recommending the exploration of alternatives.

4. Even if Canada greatly improves its performance as a knowledge-producer and a purveyor of information internationally, its balance of international payments for information will likely be always heavily outbound, and this fact should be kept clearly in mind for purposes of international negotiation. The maintenance of good access to foreign information is crucially important for Canada, and it should be the lowest-cost access obtainable, consistent with Canadian consumers paying a fair share of a reasonable incentive to authors and other copyright holders and assignees the world over. In addition, a point already made concerning the Canadian patent system is also applicable here: that in so far as policy is specifically seeking to better the lot of *Canadian* authors, artists, etc., careful consideration should be given to the use of policy instruments other than the copyright law. This is because, under the international Conventions, the Canadian copyright system must be basically nondiscriminatory between nationals of different member countries, and because much the greater part of any additional producer income resulting from a raising of the level of Canadian copyright protection is likely to flow to foreign authors, broadcasters, film-makers, etc.

5. A *basic* change in copyright protection should be made only if there is judged to be a large discrepancy between society's need for the copyright type of incentive and the amount of such incentive currently being provided. At the basic level, there does not appear to be in Canada any very firm evidence of a large discrepancy one way or the other. We are therefore not recommending any substantial reductions in the basic amount or kind of protection offered to holders of Canadian copyright, but by the same token we urge that there be no substantial increases either, for the existing "levels of protection" seem already quite sufficiently high, incentive-producing and costly. We would not consider as increases in basic levels of protection simple lateral extensions of existing incentives purely to take account of the appearance of new media of information-processing, but we recommend that this be done very carefully, with no hidden or partly hidden basic extensions of copyright -- for example, into the protection

of ideas as such, supplementary to the traditional protection of idea-expression. Certain copyright problems relating to computers and computerized information systems are likely to be extremely tricky in this regard.

6. It is sometimes urged that the copyright law be changed so as to alter the distribution of remuneration and incentive between the various participants in the innovative process. For example, a desire is often expressed to make the copyright law operate relatively more to the benefit of authors and relatively less to that of publishers and other more "commercial" participants in information-processing. There may indeed be a good case at times for alterations of this type, but they are often likely to be most effectively accomplished, not by changing the copyright law itself (for example, by adding new "neighbouring" or other statutory rights), but rather by making changes in other relevant circumstances.

The basic reason for this is that whatever may be the initial allocation of rights under the copyright law, a large part of them must be contractually assigned to others in order for them to be "activated" and rendered capable of returning significant streams of income to their original holders. For the most part, the author must deal with a publisher, the composer with a broadcaster or record manufacturer, and so forth. How well the author does on the deal is apt to depend rather less on the extent of the statutory rights which he initially possesses than on a host of other circumstances such as the quality of his manuscript, his accumulated reputation and popularity as an author, and the number and distributional efficacy of alternative publishers with whom he might bargain. It depends, in other words, on a variety of factors affecting his relative bargaining strength. In the case of a singer dealing with a broadcasting network, the outcome may also be very significantly affected by whether or not most of the popular singers available to the network have organized themselves into what amounts to a collective bargaining unit.

If, in an endeavour to strengthen a weak bargaining position, an author is granted an additional statutory right affecting one part of his contract with a publisher, the object of the exercise may be wholly or partly frustrated by a compensating adjustment in the rest of the contract. If, for instance, the law were to prevent publishers from acquiring cinema rights to novels, or were to specify that the author must receive a certain

minimum percentage on any resale of cinema rights by a publisher, this would almost certainly affect the amount which the publisher was prepared to pay the author for the manuscript in the first place. Similarly, if the copyright law were to assure to a television actor a specific "piece of the action" on "residual" income arising from taping and repetition of the original broadcast, this would likely affect how much the network was willing to pay the actor over and above the now-guaranteed residuals. Just as in a collective bargaining situation a union desirous of obtaining substantial pension benefits from the employer may have to be satisfied with a somewhat smaller increase in basic wages, so a copyright owner wishing to assure himself a larger income in the relatively distant future may have to take less in the nearer future.[1]

Given these tendencies towards compensatory adjustment to changes in the copyright law, what other, surer means are there for redistributing income between the innovative participants? Authors may, of course, be directly subsidized by the State, but given the supply and demand schedules involved, this is likely to channel appreciable benefits to publishers, who will now have more manuscripts to choose from and acquire at lower prices. (Similarly, however, subsidization of publication, as sometimes practised by the Canada Council, results in some transfer of benefit to authors.) Generally, the most effective means of changing the income distribution are likely to be those which substantially alter the relative bargaining strength of the various parties to publications and performances of copyright-protected works. Organization of actors, singers and musicians into collective bargaining units is one example. Another, which has the attraction of being likely to direct appreciable benefit to the final consumer, is the reduction of industrial concentration among publishers, broadcasters or other bodies to which original holders of copyright assign their rights. Thus the relative bargaining position of television performers in Canada is likely to be strengthened, not only by higher Canadian content requirements, but also by the development of new, program-originating cable television

---

[1] If, however, the law were to secure to both actor and network residual income which had previously escaped them, both might end up better off. Some effect in this direction is likely to result from our later recommendation regarding broadcasting rights.

companies. For the prospective seller of original television scripts and performances, new alternatives to the two major wireless networks are appearing, and this should tend to enlarge the total flow of income to such sellers.

7. The ownership of a copyright should be easier to trace and the royalty more convenient to remit than is the case today. Ordinary book copyright is usually not much of a problem in this respect, but complex film copyrights are another story, and as various media of high-speed information transmission proliferate, lengthy searches for copyright owners and subsequent drawn-out negotiations with each of them will grow more intolerable. Technology already exists or is on the horizon to make the identification of a copyright owner and the billing of an information-user for royalties little more complex or time-consuming than the corresponding arrangements involved in a long-distance telephone call. What principally remain to be innovated are the associated new legal and organizational arrangements.

8. Like early railways and aircraft, much of the new information technology (particularly its software component) has proved to be somewhat accident-prone, to the dismay and cost of some and the ill-concealed joy of others; but its progress is just as irresistible, and it should be treated as capable in the end, if wisely managed, of producing enormous and widespread benefits to society. Its potential benefits are especially great for Canada, and Canadian policy should therefore move as quickly and efficaciously as possible to encourage its further development and more general use, and to clear up copyright problems connected with it.

9. In developing possible alternatives to, and variants upon, the existing copyright system -- and technology is making this virtually unavoidable in some areas -- the dangers of State or private censorship or monopoly must be effectively forestalled. These dangers may be illustrated by two of the many possible policy options:

(a) Allow anyone to produce copies of an author's work but obligate him to disclose to the government the number of copies made. The government then would pay the author some amount per copy from tax revenues.

(b) Provide for private organizations which would accept assignments of a creator's rights, as is now done for musical composers with their

performing-rights societies. These organizations would act as agents for the copyright owners, and licences could be more expeditiously acquired and appropriate royalties paid to the copyright owners.

Case (a) involves a clear danger of outright government censorship or, at the very least, government discrimination in setting rewards to authors. Case (b) is an already very widely used device whose inherent creation of private monopoly power may be countervailed by direct government regulation of royalty rates.

The two cases given should be treated as only partially illustrative, and by no means exhaustive of the many ways in which private or State censorship or knowledge monopoly can arise. The seemingly unavoidable "natural-monopoly" characteristics of many actual and proposed electronic systems of information distribution make this danger one over which Parliament, the mass media, and the public should take care to exercise continuing surveillance.

SPECIFIC POLICY PROPOSALS

Because the Copyright Act has been unrevised in almost 50 years, there are a host of special and specific problems that need attention. Not all need revisions in the legislation since some are adequately covered by the present law if people were willing to exercise their rights. Others are likely beyond any form of effective control for practical reasons of policing. Nevertheless some specific matters do warrant attention and recommendations for change. In addition, the more detailed wording of the statute requires careful revision in many areas. This should be undertaken by highly qualified legal experts rather than by a body such as the Economic Council of Canada.

Term of Copyright

It is implicit in the first and fifth of our general guidelines that there should be no lengthening of the basic term of copyright in Canada. The present term appears to give ample time for income to flow to copyright holders and their surviving dependants.

Registration

The principle enshrined in the Berne Convention and subsequently in the Canadian Copyright Act -- that copyright protection should commence automatically and without formalities more or less upon publication -- was an important boon to impecunious authors in an age when communications were slow and when the formal securing of copyright in a variety of countries would have been a lengthy, expensive and uncertain process.

Today, with communications and other information technology greatly improved and with governments more continuously in touch with each other on copyright matters, formal national and international registration of copyright in works could be carried through much more quickly, cheaply and certainly. The United States, it may be noted, already has a national copyright registration system. The advantages of general compulsory registration, which if the system were well-designed would be primarily those of more rapid identification of owners and securing of rights, now appear to exceed the disadvantages. Canada should press for an examination of the possibility of instituting such a system on a multicountry basis under the international Conventions and should be prepared to set an example in her own domestic system if this would be likely to expedite matters. A reasonably simple system, unburdened with unnecessarily onerous reporting requirements, for the registration of film copyrights, might be a good place to start. The money cost of setting up and running the basic registration system might best be borne in the first instance by governments, with partial or total cost recovery by way of relatively nominal registration fees. In terms of real social costs, a good registration scheme should be able to reduce the total amount of resources being expended, largely by private parties, on copyright search and on copyright lawsuits. These costs, which may otherwise tend to grow considerably larger in the future, can be reduced if there is a readily available source of the relevant copyright information.

Advisory Committee and Appeal Board

As has been stated, and as will become even more evident from the discussion of further specific recommendations, computers and other new information technology have already thrown up copyright questions too difficult to be answered within the limitations of time and resources available for this Report. Moreover, it can be expected in any case that further such questions will continue to

arise in rapid succession and that statutory revision will therefore have to be frequent. To assist this process, we recommend that there be set up a broadly representative and well-qualified Copyright Advisory Committee reporting to the Minister of Consumer and Corporate Affairs. The duties of this body would be not so much to advise on all matters of copyright policy, many of which would be well within the competence of the Commissioner of Intellectual and Industrial Property and his staff, but rather to study in depth particularly difficult copyright issues referred to it. The Committee would be expected to publicize these issues and to solicit appropriate representation from directly interested producer and user groups as well as from consumer and other broadly based organizations.

On a more day-to-day operating level, the increased use that we foresee of compulsory licensing and other regulatory techniques associated with the performing-rights-society approach to copyright enforcement will render more important the regulatory and arbitrating duties of the present Copyright Appeal Board. We recommend that the functions of this Board be absorbed into those of the more broadly based Appeal Board for all matters of intellectual and industrial property that we recommend in Chapter 5. It might perhaps be best to assign copyright matters to a specialized subgroup of the Board, but even on this basis the maintenance of a single Appeal Board would offer important economies in the use of limited resources of relevant expertise, with probable financial savings as a consequence.

As an illustrative example of how the Advisory Committee and the Appeal Board might operate together, we draw attention to the present royalty rate problem for sound recordings. Under the law, a musical work that has been issued as a sound recording can be recorded by anyone else subject to the condition that a statutory royalty of 2 cents per "side" be paid. Both inflation and technology have called this rate and base into question. With long-playing records and tapes, the 2 cents is now divided among many more composers than in the days of single-song 78-rpm records. We have not been able to hit upon a new rate that would be any less arbitrarily determined than the old. We have, however, proposed an administrative mechanism by which old issues in new circumstances, such as the "2-cents-per-side" issue and royalty rates on video recordings, can be studied and decisions made on the most equitable basis possible.

We recommend that the Appeal Board survey, from time to time, the statistical and other techniques of royalty assessment being used by performing-rights societies and similar "copyright collectives" operating under its jurisdiction. It is important that the techniques used be fair to all members of such collectives, at least to the extent that this can be assured without incurring intolerable costs of monitoring and assessment.

Copyright "Collectives", Licensing and Regulation

While governments do well to be chary of encouraging combinations of producers that may have anti-competitive effects, continuing technological change appears to make inevitable a greater use in the future of copyright "collectives" such as performing-rights societies, which on behalf of their members assess, collect and distribute copyright royalties, and may also detect and prosecute copyright infringement.[1] Future electronic systems of information distribution may well have built into them a performing-rights-society approach to copyright enforcement, and in a later recommendation we urge the exploration of an improved system for the distribution of certain printed materials that would, among other things, effectively discourage infringement via photo-copier and would employ a collective procedure of royalty assessment.

We therefore recommend here an adjustment of the Copyright Act to permit the wider use of the performing-rights-society approach, including its extension into the field of printed and other materials. With this must be associated another recommendation, that the powers of the Appeal Board to regulate the fees and royalties of such "collectives" and the powers of the Minister to issue compulsory licences must also be enlarged, so that the protection of the public that has necessarily gone along with the formation of performing-rights societies in the past can be provided.

We should like to make it very clear that the extension of public regulation that we have in mind here would not be such as to force an author or other creative person to yield up his work to any particular processing

[1]Presently these performing-rights societies are concerned only with musical and dramatic works. They operate with international co-operation and look after one part of the copyright interests of authors and composers who, in the absence of this collective effort, would find supervision of these particular rights an economically unviable task.

and distributive system, or to submit to adaptations or mutilations of his work of which he did not approve. Instead, where an author had elected to use a particular distributive system to propagate his work, and where he was satisfied that the nonregulated aspects of his contract with the system represented the best bargain that he could drive, he might find that his monetary remuneration was a standard fee (e.g. a standard fee per page or per number of words or binary "bits") based on public use of the work. This type of arrangement appears necessary for electronic information systems in particular, in order to ensure that their advantages to the public of speed and convenience are not largely vitiated by prolonged haggling and by complicated and expensive copyright billing arrangements for individual works. We would very much hope that in the present, early phase of development, when electronic systems must make their way against competition from older, better-established information systems, appropriate fee and billing arrangements will emerge as a natural result of competitive pressures, without the need for specific legislative intervention on this score. But if serious impediments emerge to the development of socially desirable systems, there should be fall-back provisions for their removal. Later on, when by contrast with their precarious beginnings, certain electronic systems may come to dominate their markets, there must also be means by which their "input" and "output" prices can be publicly regulated, provided no better way is available of protecting "creator" and consumer interests.

Removal of Import Barrier

It has long been common knowledge among Canadians who for one reason or another have a lot to do with books, that foreign books, many of which are distributed through domestically-owned or foreign-owned Canadian publishing houses acting as agents and licensees, are often very noticeably more expensive in Canada than in their countries of origin -- this notwithstanding the fact that copyright protection applies in both of the countries involved. For example, a survey by the Economic Council on British and Canadian retail prices of a sample of books covering a range of subject matters has shown that, on the average, the Canadian prices in the sample are about 30 per cent higher. The results of the survey are summarized in Appendix B.

It is possible that Canada's geography and the conditions governing the character of its network of retail book outlets, make for unavoidably higher book-distribution costs. It seems highly unlikely, however, that the unavoidable differential -- the one that would prevail if the distribution system was as efficient as human ingenuity could make it -- would be of anything approaching the order suggested by our sample.

At various times in the past, arguments have been put forward in favour of an appreciable price differential of this sort on grounds that Canadian literature should be cross-subsidized out of profits on the distribution of foreign books. It has been argued that some system of this kind is necessary for the maintenance of Canadian cultural identity and the survival of the Canadian publishing industry. We have already recognized the maintenance of cultural identity as an important and widely accepted noneconomic goal. We recognize too that the pursuit of such a goal involves the maintenance of indigenous information industries, including publishing, up to a certain degree of size and importance. There are certain vital things which a Canadian publishing industry can do that no foreign counterpart is likely to do. These include the early nurture of Canadian authors not yet ready for the big international markets, the generation of textbooks and other teaching materials for courses where Canadian content is a prime educational requirement, and the production for a more general readership of such works as Canadian histories and biographies which are much in demand domestically but enjoy little sale abroad.[1]

---

[1] In the context of this paragraph, "Canadian publishing industry" may be taken as meaning establishments located in Canada which engage in the activities described on a significant scale and which maintain continuing programs to develop Canadian books by Canadian authors. The criterion of definition is a performance rather than an ownership one. It should be noted that as part of the background research for this chapter, available information regarding the Canadian publishing industry (e.g. the preponderance of textbooks in the total dollar volume of business and the high proportion of foreign works in total sales of copyrighted books in Canada) was gathered and analysed. This information is not, however, deployed here because much fuller information regarding the industry is being made available to the public as the result of a contract study commissioned by the Department of Industry, Trade and Commerce.

It is our conclusion, however, that the maintenance of prices as high as those now prevailing for many foreign books on general sale in Canada is a poor way of furthering the objectives mentioned -- a way more objectionable even on cultural than on economic grounds. For Canadian publishers to capture scale economies by adding to their necessarily limited business in native Canadian works the "agency" distribution and sometimes the production of Canadian editions of works originally published by their parent firms or other foreign firms may well be good business practice. But the price differential vis-à-vis the country of origin is quite another matter. How does it further the education of Canadian youth and the development of Canadian culture and civilization, which still heavily depend on good informational links with their nearer foreign relations, to place such a high private tax on an important segment of reading matter? If there were some clear association between the amount of agency business available to individual publishers on the one hand and their support of Canadian authors and production of Canadian textbooks on the other, the cross-subsidization argument might carry somewhat more weight. But no very definite pattern of this sort is apparent. Some Canadian publishers with agency business have indeed gone out of their way to foster Canadian textbooks and general literature and to "carry" native authors through some very lean years. Not all, however, have acquitted themselves on any very large scale in this way. Meanwhile, a most encouraging recent development has been the emergence of small Canadian publishing houses, with little if any agency business, specializing in the handling of Canadian writers.

We believe that it is time for policy to strive to bring down the prices of foreign books in Canada and to find other ways of supporting native literature. One possible "other way" is suggested in connection with a later recommendation. As for the reduction of Canadian prices of foreign books, a contribution towards this should be made by revising Sections 27 and 28 of the Copyright Act so that the law does not deny to anyone the right to purchase works protected by Canadian copyright in other countries where they also enjoy copyright protection, and to import these works into Canada. Some limited importation is already permitted under exception clauses in Section 28. It is also the case that owners of Canadian copyright must take certain positive actions in order to invoke some of the import-restricting effects of the two clauses and that such actions have been relatively rare in recent years. But the mere threat of the invocation

of Section 27 probably has some import-deterring effect. It would seem better, therefore, to revise the two Sections as recommended and then to study additional means of bringing the prices of foreign books in Canada down to more reasonable levels.

Public policy must clearly operate to ensure the maintenance of a healthy Canadian publishing industry -- in both official languages, and to some extent in others. But we believe that this can be done consistently with the removal of copyright as an import-restricting device. As was recommended in the case of patents, Canadian copyright law should not deny to anyone the right to purchase works protected by copyright in other countries where they also enjoy copyright protection and to import these works into Canada.

Taxation of Copyright Earnings by Foreigners

While the Canadian Income Tax Act has set out a provision for a 15 per cent withholding tax to be made on foreign income earned in Canada, there is a very specific exemption noted, in Section 106(1)(d), for copyright royalty income. It does not seem to be equitable to Canada to set out this one class of foreigners for an income tax exemption and it is recommended that this part of the tax law be changed.

Infringement Remedies

Under the present statute there are provisions for injunctions, damages, and even for seizure of the infringing copies by way of a civil lawsuit, plus provisions, by way of summary conviction, for fines and even imprisonment with hard labour for infringement. While these appear to be thoroughly adequate in scope, we recommend that the government consider raising the severity of the penalties to a level more appropriate to modern conditions. It is also suggested that consideration be given to ways that would enable infringement cases to be processed with more dispatch and at a lower cost, since certain cases of abuse have been brought to our attention in which greater speed of enforcement would solve certain problems. In this way the penalties' deterrent effects could become more relevant than the retributive ones.

Clarification of the Scope of Copyright

The present Copyright Act is quite explicit in enumerating a variety of specific rights that go with the authorship of literary, musical and dramatic works. One of the effects of this is, of course, greater clarity and certainty for the authors. However, the full set of rights applicable for certain other works, such as sculptures and paintings, is not as clear as it might be. It is therefore suggested that the revision of the law set out the specific rights it intends to protect for each group of works covered in as clear and unambiguous a manner as possible.

Moral Rights

Moral rights may be defined as the rights of authors and others to prevent adaptations and mutilations of their works of which they disapprove and which they believe may reflect prejudicially on themselves. This matter is specifically referred to in one relatively brief passage of the Copyright Act -- Section 12(7).

The section in question is one of those parts of the Act whose scope might well be clarified in accordance with the previous recommendation. An elaboration and greater spelling-out of the section might reinforce its capacity to further its own stated objective -- i.e. to give an author the right, "... to claim authorship of the work, as well as the right to restrain any distortion, mutilation or other modification of the said work which would be prejudicial to his honour or reputation."

At the same time, it has to be recognized that authors' tastes and circumstances vary widely, and that statutory provisions should not be so detailed and rigid as to hamper copyright owners in making arrangements that suit their individual situations. Some authors would do much to prevent certain adaptations of their works -- for example, the conversion of a novel into an unacceptable film version, with the author's name still among the credit lines; others might not mind this, provided the remuneration were substantial. Some authors unconcerned with adaptations of certain of their works may prefer to assign all their rights in such works for one lump sum, believing that this is likely to bring them the greatest economic return; others may prefer much more reserved assignments -- on moral grounds, economic grounds, or both. Good literary agents and authors' associations can do much to help an

author interpret the fine print of a contract proposal, consider what specific conditions he might be well-advised to specify in the contract regarding future adaptation and use of his work, and generally decide what would be the best set of arrangements for him in each individual case.

Neighbouring Rights

The basic copyright goes directly to the output of the originator. Another concept of rights, called neighbouring rights, has more to do with persons who, for the most part, play a later intermediate role in the innovative process. Four separate groups of this sort are currently considered key participants in these distinct but related rights: broadcasters, sound recorders, publishers, and performers.

We, as did the Ilsley Commission, recommend the provision of a broadcaster's right in a broadcast so that the broadcaster can authorize the recording and retransmission of his broadcast, except in the case of complete program pick-up with simultaneous transmission by a cable television system. Thus if a cable system wishes to record a live program for transmission at another time (the only exception to this being "ephemeral" recordings, for example, to adjust for time zone differences during a single day), it will have to negotiate with the originator of the broadcast based on the knowledge that the broadcaster clearly has such rights. In addition, the broadcaster will be given a legal position vis-à-vis the producers of audio-visual records who are even now beginning to produce various forms of recordings for use on private play-back machines. We believe that with this protection, especially related to the impending new home play-back market for audio-visual recordings, there will be an incentive on the part of broadcasters to improve the quality of their product based on this developing secondary market.

In the case of publishers' rights, we do not advise any extension of present legal protection with one special exception related to the matter of "public domain" material that is reissued by a publisher. Currently the publisher, as the author's agent, does retain a certain protection. However, where a copyright no longer exists, and the publisher has gone to the expense of resetting this "public domain" material in a new typeset, then we recommend that he be given protection in the copyright

law, in that particular edition only, for a period of ten years, based on the type style as the indicator. What must be avoided here in any change is the reconstitution of an expired copyright in the basic original work simply because a new edition comes out.

It is presently stated in the Copyright Act that a particular sound recording as such has a 50-year protection against direct copying, just as does a photograph. A major point at issue here is the associated performing right in such a recording whereby a record-maker would have, like the writer of the words and music, a legal claim to collect a fee from public users of his product above and beyond the original sale price of the recording. We continue to accept the concept of a performing right in the basic material because this is the only way in which a writer of such materials can get payment related to the use of his work in the market. The record-maker, on the other hand, in spite of many "creative" inputs by his staff, is really in the business of selling a physical item such as a disc or a tape, and it is this activity that should reimburse him. To say that he merits an extra fee each time his physical unit is publicly used is rather like saying that a book publisher should be paid an extra amount each time the book is read. Some countries have been persuaded by arguments for such a performing right in a sound recording, but we see no current shortage of recordings that would indicate inadequate incentives for their creation and justify what would be in effect a use fee on a physical good. Because the present Canadian law does allow a potential for such a right in sound recordings, we suggest it be removed. The same arguments should apply to the developing video recordings.

The fourth member of this group of neighbouring rights is called the performer's right. Under its provisions the person who performs a work -- be it a song, a play or a movie -- is given a statutory right to restrain subsequent use of any recording of the performance. Part of the reasoning behind the claims for this right, which has already been a part of the evolution of some laws in Europe, is based on the idea of a "moral right". This has been discussed above.

There is, however, a second, more clearly economic aspect to the claim for this performer's right. It appears to be believed that the extension of legal rights to permit the performer to exert a more specific, statutorily guaranteed control over subsequent re-use of his

original performance will redound to the performer's economic advantage. But this is not necessarily true. Two cases may be distinguished. The first is a case where there was previously *no* statutorily guaranteed control, by *anyone*, over subsequent re-use of a performance. In this case, the institution of such a right is very likely to benefit performers, and we therefore expect that our recommendation for the institution of a broadcast right, if implemented, will benefit Canadian performers. But in a case where there already *is* a statutory right to control re-use -- for example, a right in a videotaped show held by a broadcasting network -- it is by no means certain that providing an additional or alternative statutory right by which the performer may also control re-use will make the performer better off. (Arguments in support of this conclusion will be found above in guideline 6.) The main effect may simply be to introduce into the system an extra element of legal complication and delay.

A not unimportant feature of re-use of a performance and of the extension of an original performance by such technique as satellite transmission, is that the resulting additional exposure of the performer may to some extent "pay off" for him in other markets. This probably helps to explain the continued readiness of performers to record music written by others, notwithstanding the fact that the joint remuneration of the performers, record-manufacturers and distributors concerned is based only on the sale of the records and not on the extent of their subsequent use.

We conclude that a proliferation or a "layering" of secondary performing rights would be of dubious social benefit and that a performer's control of re-use of his performance should by and large be settled by private contractual arrangements between himself and the holder or assignee of the primary rights. As noted earlier, there are also other means, besides copyright, to foster and develop creative activities. With regard to performers, we suggest that where there may be a special need to encourage them, especially younger and less well known performers, in certain classes of cultural activity, this could be done more effectively with an expanded use of selective grants and subsidies from public sources, such as the Canada Council.

Generally then, except in the case of broadcasting where the medium really is the message, and for the limited typographical right noted, we do not recommend any extension of neighbouring-rights legislation, either domestically or through any treaties that Canada may sign in the future. And, in one specific case, we propose to remove an unnecessary section of the present Act which includes one such right, namely that in sound recordings.

It should be clearly understood that our decision not to support all of the demands that have been made for the statutory extension of neighbouring rights in Canada does *not* imply a view that income and incentive should not flow to certain intermediary participants in the innovative process. Rather, the view is that such participants should continue to secure streams of income to themselves via their contracts with other participants in the process.

New Technology

(a) Copying Machines

Apart from some possible clarification of the "fair-dealing" provisions of the Act, we do not recommend that any revisions be made to the copyright law specifically affecting copying machines. We have reached this conclusion on the basis of thoughtful analysis of the evidence suggesting that the so-called "photo-copying" problem which today greatly concerns many copyright owners is not primarily a problem of copyright evasion, and that if it is treated primarily as such, the result may well be both bad copyright law and a diversion of attention away from some serious but probably not insoluble technological and economic problems facing the publishing, printing and bookselling industries.

The most important single piece of evidence to this effect is the fact that whereas the great majority of copying machines used today in business, in government, and in educational and other noncommercial institutions supply output at a cost of between 4 and 5 cents a page, most publishers' output can still be bought in the market at a price ranging from roughly half a cent to 2 cents a page. If people are using copying machines mainly to avoid paying authors' and publishers' royalties, they have chosen a rather expensive way of doing it! In fact, of course, it seems clear that they must have other important

reasons for resorting to the present generation of copying machines on the scale that they do.[1]

To keep matters in perspective, the evidence of various surveys should be noted, suggesting that, up to now, much the greater part of short-run machine-copying has been of documents such as business letters and memoranda where no practical copyright issue normally arises, or of copyrighted documents on a single-reproduction basis for purposes falling well within the limits of the fair-dealing exemption. Some of this survey evidence is summarized in Appendix C.

But some infringement of copyright is obviously occurring, and it will become extremely tempting for it to be expanded, as new versions of copying machines appear that are -- variously -- more compact, cheaper to buy or lease, and capable of delivering output, at a per-page cost ever more competitive with publishers' output produced and delivered via "standard" technology. In the light of the extraordinary development of copying machines in the recent past, and of research and development programs currently under way, it seems a fairly safe assumption that further significant improvements along the general lines suggested will soon take place.

This does not, however, essentially alter the point illuminated by the existing cost ratios -- that the problem does not seem to be primarily one of copyright royalty avoidance. Why do people infringe copyright with machines, even on the present limited scale, when the surface economics of the situation appear to argue so strongly against it? Since many readers of this Report will by now have been parties to this kind of infringement -- casually and inadvertently perhaps, and on a very small scale ("only a little piece of pork") -- they will be able to explore the question introspectively.

Individuals' motives vary, but for the copying population at large, the most plausible single hypothesis would seem to be one much used in modern transport economics -- that people will often pay a high price for speed and convenience, and that when *all* their relevant

[1]These reasons must also be apparent to most corporate treasurers and other financial controllers who allow heavy use of copying machines to go on, even in "subsidized" cases where no specific user charge is made per page copied.

economic circumstances are taken into account, this is by no means always an irrational decision. For a manufacturer or retailer caught with an inadequate inventory, it may be eminently rational to use air freight even if ground transport would seem on the face of things to be some cents per ton-mile cheaper. For a businessman with one or two off-the-beaten-track interviews on his schedule, it may be sensible to drive to work that day and pay heavy parking fees even though a commuter train could perform the home-to-office-to-home portion of his transport needs more cheaply.

In similar fashion, people paying double or triple the bookseller's price (plus a conscience price) for fast and convenient information may be infringing copyright, but not necessarily the canons of rational economic behaviour, for time is valuable, and searching out and waiting for information in readily usable form can be very costly. Moreover, to incur a heavy cost of this kind becomes increasingly exasperating when all about one may observe not just copying machines, but a growing variety of other devices delivering information rapidly and conveniently. A university professor who has just viewed a preliminary screen presentation of the results of a large-scale regression analysis, ordered the previous evening through a computer terminal in his own office, and who must now turn his attention to the securing of 15 copies of a textbook that may take six weeks to arrive, cannot but be struck by the performance gap between the two delivery systems.

It would be premature, however, to conclude that the future of print technology, and of systematic special incentives to authors and others who use it, is hopeless. Reports of the imminent death of the book have been grossly exaggerated. As a subsystem of information distribution, storage, and retrieval, it retains significant inherent advantages; it is not dying, but its relative role is changing. The really important message of the copying machine to publishing and its more closely allied industries is not that people will break copyright every chance they get, but rather that time is money; competition is tougher; and the customers are more impatient and otherwise exigent than they used to be. They want faster delivery, "instant" special-purpose anthologies, and mixed-media packages; they are less disposed to wait while consumer demand builds up for a new edition of an "out-of-print" work; they frequently want parts of books and journals rather than whole

books and journals; they are often prepared to pay well for distinctly spartan print-products provided they suit requirements and arrive quickly in the quantities desired.

Given already-available and soon-to-be-available technology, it is hard to discern any very fundamental reason why the publishing group of industries cannot before very long meet many of these stiffer consumer demands remuneratively. In fact, many firms have already gone some distance towards doing so. Such developments as the paperback revolution, in which many Canadian firms have participated with distinction, have constituted important advances in information technology.[1] Patents notwithstanding, much of the "opposition" technology has been remuneratively adopted, as was done by the railways when they introduced piggy-back freight service and rack transporters for new automobiles. Publishers and printers already use telecommunications and computers on a considerable scale, although, thus far, more in actual production and printing than in ordering and final distribution. As for electrostatic and other new copying processes, it must be remembered that any means of multiplying copies that can be used by a small-scale (and therefore hard-to-detect) infringer can also be used by a commercial printer -- and ordinarily used more cheaply, given the longer average production run. Here again, electrostatic and other new processes are already being employed to some degree in this way.

It has been proposed that the "photo-copying problem" be met by a broader use of compulsory copyright licensing and by a legal requirement that all copying machines should incorporate a stamping and metering device to facilitate the determination and collection of copyright royalties. This contains some interestingly suggestive pointers to a "solution", but as a comprehensive response to the larger problem of which the use of copying machines is a symptom, it seems too negative, defensive and partial. It would thrust directly on to consumers most of the initiative and cost of developing what would amount to a new and improved system for distributing publishers' products and collecting royalties. It would be very difficult to enforce. Who would ensure, for instance, that many of the tens of thousands of metering devices had

[1]One of the significant things that the paperback revolution has demonstrated is that a relatively spartan print-product can also, in some instances, be an extremely attractive one, measuring up to the highest aesthetic standards of book production.

not been tampered with? How much more difficult still would be the enforcement problem when copying devices became (as some virtually are today) so small and cheap that almost anyone could own one? Should the law so operate as to restrain appreciably such technological advancement via miniaturization when this could be of great value for informational purposes, many of which are completely innocent? To draw an analogy from another medium, how would people feel about a similar metering requirement for compact home tape recorders?

We would prefer a more positive and comprehensive solution, involving perhaps the development of some kind of intermediate, independent network facility for the fast and convenient delivery of non-infringing photocopies and other short-run, produced-to-order printed materials. No one would be legally compelled to use the facility; instead, it would be expected to make its way by offering good service to consumers and enlarged markets (notably markets for parts of works) to authors and publishers. Thus the basic strategy would be to supplement and improve the existing system of distributing printed products in a manner that would pick up royalties in the process, so that private economic interest rather than a vast new enforcement mechanism would keep infringement within tolerable bounds. Such a new facility would presumably employ some kind of standard royalty schedule, and if the facility were both successful and the only one of its kind in Canada, the question of public regulation of its royalty rates and user prices might at some stage become relevant. Actual royalty remissions and user charges would be determined in relation to quantity of use, probably with the aid of monitoring and metering devices. These devices, however, would merely be part of the network facility and not a legal requirement on any owner of anything that might possibly be classified as a copying machine.

All this may seem at first glance a very tall order, but the question must be asked whether there is any altogether different line of approach that is likely in the long run to be economically and also politically feasible. Once again, it would be foolish to try to spell out all the practical details when the underlying problem is evolving so fast. All that is recommended is that the general type of approach suggested be carefully explored, with the federal government materially assisting the exploration and possible later development of it. If good

progress were registered, this might become one of a number of much better means than the present copyright import barrier by which public policy helped to maintain a Canadian publishing industry and Canadian cultural identity.

We have seen some evidence that the ability of the Canadian publishing industry to meet consumer demands more rapidly and conveniently, and so head off infringement via photo-copiers, could be improved in some quite simple ways in the short run. The representative of one Canadian publisher noted for fast turnaround on book orders attributed this in part to the company's non-use of computers. He went on to explain that as the company's business expanded, computers would almost certainly be phased in, but that in his view some Canadian publishers had made poor use of computers, in such a way as actually to slow down the ordering and delivery process.

Other aspects of book promotion and distribution practices in Canada, such as the very generous distribution of free "desk copies" among school and university teachers, suggest questions about efficiency and costs. Possible reforms would of course raise troublesome issues in some instances. In the Province of Quebec, there is a considerable network of small local bookstores and an understandable reluctance to forgo, in the interests of other dimensions of efficiency, the convenience to the individual book-buyer that this network provides. There may, however, be ways of reconciling the interests of individual book-buyers with those of large, bulk consumers, such as school corporations, and of reducing costs to both. New methods and new outlets of book distribution should be considered on their merits. It should not, for example, be thought demeaning to an author that he may reach some of his public via the paperback book-shelves of newspaper and magazine distributors: the important thing is that he reach them.

Also, there seems no essential reason why, when short-run photo-copying is clearly the best way of meeting some urgent consumer demand, the publisher should not undertake to provide this service, on a remunerative basis to himself and the author, either on his own or through the intermediation of some network facility such as we have outlined. Delivery could be directly by mail from the publisher or through some bookseller, librarian or other person designated as the publisher's or network facility's point-of-sale agent. Nor does there seem any reason why,

especially under the system of copyright registration that we have recommended, a combination of speedy copyright clearance and photo-copying cannot rapidly provide special-purpose anthologies, as demanded, on terms acceptable to both buyers and sellers.

As time goes on and more and more use is made of electronic techniques for distributing printed materials,[1] the distributive system is likely to acquire more collective and "natural-monopoly" characteristics, and the danger of State and private censorship and monopoly mentioned earlier will become more of a problem. To the extent that State regulation (e.g. of standard royalties) is required, it should be -- and be clearly seen to be -- a very "hands-off" type of regulation so far as the substantive content of what is distributed is concerned. It might also be well to specify legislatively that collective, electronic systems for distributing print-products should operate on rigorously specified common-carrier principles, accepting on nondiscriminatory terms all traffic offered, whether from large or small, or domestic or foreign, publishers.

It is implicit in the above suggestions that the copyright law should be widely known and seen to make sense, and that its enforcement should rely neither on intensive and costly snooping (whether public or private) nor to any great degree on the detailed interpretation by nonexperts of such a complex legal provision as even a clarified version of the "fair-dealing" exemption is bound to be in some cases. The aim should instead be to make both the law *and* the distributive system for copyright-protected materials such that the law may easily be complied with.

There is, however, one sector of the economy where "amateur policing" could reasonably be made more effective, and that is the public sector. Cases have been brought to our attention where sheet music and educational films were made available to public educational authorities on a sample or preview basis, where the samples and preview films were returned to their makers with refusals attached, and where it subsequently transpired that photo-copies and videotapes had been made and the materials were being used

---

[1] In this context, "printed materials" may be interpreted broadly to include microfilm, microfiche, and any other relatively permanent and re-usable medium of delivery that permits a user to scan visually a set of alphabetic and numeric characters.

in school systems. In contrast to large-scale commercial infringement of music and film copyrights, such infringement is hard to detect and prosecute, in part because of the reluctance of music publishers and film-makers to get on the wrong side of educational authorities who may be an important source of future business. But one would think that provincial departments of education could readily see how destructive this type of practice is and why they should issue directives and take other steps to keep it from happening. If it is permitted to occur on a substantial scale, it is likely to drive out of business some Canadian sheet-music publishers who rely heavily on the educational market and to persuade some Canadian educational film-makers that they should shift resources into some other field such as the making of television commercials. Such a result would hardly tend to advance Canadian education.

(b) Computers and Computerized Information Systems

We recommend that no special *new* provisions for the payment of copyright royalties, over and above those already embedded in the initial purchase price of a protected work, be attached to computer *input*, but that such provisions should be attached to certain types of computer *output* where the case for payment of royalties is clear. Other types of computer output where the case is not clear should be referred to the proposed Copyright Advisory Committee for study.

In considering the handling of copyrighted material by computers, an analogy may be drawn involving libraries, computers and earlier kinds of information-processing machinery. It has always been legal in Canada for a library to purchase a single copy of a protected work, effectively remitting one royalty payment to the copyright owner in the process, and to store the work on its shelves. It has been equally legal for scholars and scientific researchers to come to the library, consult that book and others, make copious notes, and out of these and subsequent labours to construct something "new", non-infringing and perhaps socially valuable. In some cases at least, the new product may also be commercially marketable. If in assembling and analysing their information, such intellectual toilers employ a variety of mechanical aids such as card index files, Hollerith machines and desk calculators, this makes no legal or financial difference whatever to the owners of copyright in the books on the library shelves. Whether the library is a public, municipally supported institution, or part of the research

and learning facilities of an individual, a university, or a profit-making enterprise makes no effective difference in this respect either. Nor is it relevant for copyright purposes that the library, in cataloguing and storing its books, and in retrieving them upon user demand, may also employ various mechanical aids, ranging from simple dumb-waiters to devices of considerably greater technical sophistication.

If all this remains an acceptable set of arrangements *for the specific types of informational activities just described* (and in their conventional form they have gone on for a long time on this basis with very little root criticism being directed at them), it is difficult to see why the insertion of computers into the situation should make any real difference from a copyright standpoint. It is difficult, in other words, to see why libraries and other organizations owning computers, or buying or leasing their services, should not have the same right as uncomputerized public and private libraries to buy copies of copyrighted works in the ordinary way and to place them on their "memory-shelves". It is also difficult to see why scholars and researchers, carrying out the functions described above, should have to obtain any special permission from copyright owners in order to add computers to their existing range of mechanical aids.

In other words, if the suggested analogy stands up, and if the previously stated guideline is accepted -- that copyright protection in Canada should not be *fundamentally* increased but only extended laterally to cover new media -- the much-discussed question of the copyright status of computer *input* seems to become virtually a non-problem. So does the copyright status of the computerized, as opposed to the noncomputerized, manipulation of information in ways and for purposes that have never previously been considered infringing. Existing law and practice, especially as it applies to libraries of all kinds, indicates fairly clearly the road to be followed.

The analogy changes, however, when attention turns more specifically to computer *output*, and to the observation of a computer or computerized information system in the act of delivering to somebody for a fee all or part of a copyrighted work under the following two conditions:

(a) the work is in its original form of expression or in one of the general classes of adaptations of original form that are enjoying copyright protection now; and

(b) the medium of delivery, such as tape, print-out, microfilm, or the placement of electric charges in the memory circuits of the fee-payer's computer, is more or less permanent and re-usable, or directly activates a revenue-producing performance of some kind.

In such a case, it seems fairly clear that the computer is now behaving much more analogously to a book-seller or a commercial cinema and that new royalties should be payable -- preferably via some highly streamlined system of recording and billing compatible with the high-speed devices being used.

Thus far the analogy with pre-computer institutions and practices may perhaps be stretched, but it is not nearly far enough. A large and expanding area of new and unanswered questions remains. What should happen, for example, if a distant fee-paying user of a remote-access, computerized legal information system, prior to his receiving a "hard copy" of a court judgment in a case, has previously been able to examine, as a guide to his final selection, an ephemeral television-screen presentation of the copyrighted "head-notes" or summaries of the case and others like it? (This is no fanciful example -- it is an actual copyright problem in Canada today.) Was the pre-selection display a library or a book-selling type of service? Should the charging of a fee for the service make a critical difference to the system's liability for copyright royalties?

Again, problems arise in connection with the growing network of computerized links between libraries. For example, if two libraries share the cost of a computerized link between them, and if one transmits to the other copyrighted material in any re-usable form that effectively makes it part of the second library's permanent collection, should the transaction be characterized as an interlibrary sale of a "new book" on which a royalty is payable? In the multimedia linked-library age that is dawning, even more troublesome questions may emerge, such as, "What is a library?", "Where does one library end and another begin?" and "What is a lending and what is a selling activity?".

It would be foolish to attempt to settle such questions here. But it would be no proper solution, either, to shuffle most of them off on the courts to be coped with jurisprudentially. The Canadian courts cannot reasonably be asked to do all the work of adapting social institutions and practices to a major technological revolution; they need new statutory guidance from Parliament. We therefore recommend that the above and other unanswered copyright questions relating to computers be referred to the Advisory Committee recommended earlier. It might be hoped that the group would bear in mind that the institution of the "free" (i.e. variously subsidized) library has been over the centuries a mighty force for the advancement of knowledge and civilization, and that its basic modes of operation should only be intruded upon after profound deliberation. Making knowledge accessible without a specific use-charge per book or other item used is yet another of the ways in which society draws more resources into sectors of the total information system where there might otherwise be under-distribution and consequent underproduction of knowledge. In that deeper sense, "free" libraries and the copyright system serve a common social purpose.

Two other major points should be made about computerized information systems. For this purpose, a 1966 prophecy made by a leading U.S. copyright expert is helpful:

> "You must imagine, at the eventual heart of things to come, linked or integrated systems or networks of computers capable of storing faithful simulacra of the entire treasure of the accumulated knowledge and artistic production of past ages, and of taking into the store new intelligence of all sorts as produced. The systems will have a prodigious capacity for manipulating the store in useful ways, for selecting portions of it upon call and transmitting them to any distance, where they will be converted as desired to forms directly or indirectly cognizable, whether as printed pages, phonorecords, tapes, transient displays of sights or sounds, or hieroglyphs for further machine uses. Lasers, microwave channels, satellites improving on Comsat's Early Bird, and, no doubt, many devices now unnamable, will operate as ganglions to extend the reach of the systems to the ultimate users as well as to provide a copious array of additional services.

> "Conceived as conduits or highways for the transmission of signals, the systems will have intense responsibilities of a 'public utility' type enforced by law -- if indeed the systems (or some of them) will not come under direct government ownership and control. Horrors of Orwellian dimensions lurk in far-reaching official regulation of the communications pattern; but to say that is merely to sound a summons to wise public regulation. If the systems will have public duties, so will new intellectual productions once unbosomed and released by the authors -- the duties of submitting themselves to deposit in some form appropriate for archival purposes and to permit any manipulations of indexing, abstracting, and so forth needed to connect them, to key them in, with the existing store. This contribution made by new works need not involve their exposure to full-length use by unwelcome clients. At present, self-interest on the part of authors and publishers has usually resulted in adequate public access to works, and the law has rarely had to become insistent. Probably the law of the future will lose patience rather quickly with the mere idiosyncratic withholding of access. But I should hope there will ever be play for the humane development of the 'moral rights' of authors to prevent abuses in the exploitation of their creations. This will indeed be especially important if copyright itself recedes as a significant control."

(At this point, the author suggests that copyright will recede in importance as an incentive to those who produce scholarly works mainly of interest to other scholars and researchers, that the already considerable importance of other incentives in this field will increase, and that the majority of "learned" output will in future be distributed electronically.)

> "... For the rest, copyright will persist to serve its historic purposes. For various early, prime exploitations of particular new works, whether or not accomplished through the electronic systems, there will be individual accountings, with separate financial hazards and successes or failures. The secondary and later exploitations will be largely through the systems. The ingenuity which devises the systems will no doubt be capable of welding-in bookkeeping apparatus that can continue for the whole copyright period to bill the customers monthly

> or weekly with exact copyright charges per work used, as well as with system tolls, and then to make precise royalty remittances to the copyright owners. Perhaps this ingenuity will also be equal to the task of preventing unconsented-to private copying of works by duplicating machines or compelling it to leave traces on the machines that can be followed up by some omnicompetent bookkeeper. But what is suggested, on more sober reflection, is methods by which large repertories of works will be made available for a great variety of uses, and charges and remittances figured on a rough-and-ready basis, all with liberal application of some principle of 'clearance at the source' to prevent undue bother down the line to the final consumer."[1]

Four years have passed, and this prophecy, incorporating among other things an extension of the basic operating principles of a performing-rights society, has thus far stood up fairly well. The hopes once entertained for master "data-banks", serving a great variety of users in different fields, have considerably receded, but at the same time there has been a rapid development of more specialized information systems or utilities in such fields as stock exchanges, law and medicine. They have of course had their problems; they too have been accident-prone. But many of them have survived; they exist today in Canada; they "work" and will go on working better and better as time passes; and user interest is quite obviously growing and bringing with it inevitable copyright problems.

Both the likely nature of the systems[2] and the appropriateness for them of the performing-rights-society approach to copyright enforcement indicate a possible need for the same kind of direct public regulation that has often been found necessary for performing-rights societies in the past. This may at first be unpalatable to some, but development of the systems may well proceed in a way

---

[1]Benjamin Kaplan, *An Unhurried View of Copyright*, *op. cit.*, pp. 119-122.

[2]A broad interpretation must here be attached to the word "systems". The systems involved might in many cases make use of the facilities of already existing publicly regulated "electronic highways" such as telephone and cable utilities.

that causes people to change their opinions. At the present early stage, standardization of royalties, possibly backed up by public regulation, might mainly operate to avoid unnecessary delays in the development of the systems:

> "For example, take the problem of setting up an information retrieval system for use in medical research, whose objective would be to allow researchers ready access to results reported in thousands of research papers. The value of the system would depend upon the completeness of its coverage; but since most of the inputs would be protected by copyright, obtaining complete coverage would require the organizers of the system to locate and negotiate with the holders of the copyrights. This may be a very lengthy and expensive task, and perhaps some of the copyright holders would not be prepared to give their permission. The question therefore arises, Should the law smooth the path of the organizers of the system by eliminating the need to negotiate permissions and prices and substituting the requirement to pay a statutory fee?"[1]

It should not in practice be socially necessary to try to force anyone to yield up his information to any particular distributive system. Once it became clear that reasonable royalty rates had been statutorily set and that higher ones could not be negotiated, most holding-out would probably end.

But once a system had become well-established -- had become, quite conceivably, the predominant mode of information distribution in its field -- the shoe might shift very much to the other foot. Authors and other "input" interests might find themselves dealing with something close to a natural monopoly (or from their point of view, "monopsony") and might appreciate State regulation of royalties. Also, of course, *users* of such a well-established system would require protection against censorship and economic exploitation.

---

[1] B. V. Hindley, *The Economic Theory of Patents, Copyrights, and Registered Industrial Designs, op. cit.*, pp. 51-52.

Government might also have to act in order to ensure adequate freedom of access to well-established and predominant computerized information systems -- at both ends. Members of the legal profession, for example, may be understandably concerned about the ignorant use of the outputs of a legal information system by laymen. A client who handles his own case may well have a fool for a lawyer, and a little knowledge is indeed often a dangerous thing. But in the long run, liberal access to information seems to serve a democratic society best.

Similar questions will almost certainly arise at the input ends of systems. Should a chiropractor, for example, be denied the opportunity to insert material into a medical information system that has become the premier mode of distributing information about the ills of the human body? Here again, the most liberal arrangements would seem to be best in the long run.

(c) Copyright, Computers and the Federal Government

The federal government's involvement with copyright, computers and computerized information systems is already a much more complex and many-faceted one than is generally appreciated. It is an involvement containing some important potential conflicts of interest and other dangers. We recommend that the government commission a searching, objective examination of this matter.

The dangers in question arise from the fact that the federal government is at one and the same time a major copyright owner, a major user of computer services, a major developer of computer programs and internal information systems, a major source of research and development support for other people's programs and systems, and a regulator of information utilities. In the future, it might conceivably also become -- though only, we would urge, after extensive study, exploration of alternatives, and informed public discussion -- an owner-operator in the computer-utility business. It will be very important to see that all of these functions are properly distinguished (though not of course isolated) from each other and that they are periodically reviewed, the more so because there seems to be something about the computer that makes people adopt proprietary attitudes towards information where they did not do so before, and that activates or accentuates tendencies towards empire-building. These proclivities are likely to be no more, but also no less,

common along public servants than among comparable elements of the population at large. To take a specific example, it is important that when the government is assessing the value of an "outside" information project with a view to possible funding, the decision should not be left to persons whose situation within the governmental structure places them under strong temptation to act less as judicious assessors than as rival project developers who would like nothing more than to take over the whole job. Any decision that effectively determines whether an important information system is to be developed by the government or by somebody else should be made with particular care and impartiality.

Also, the federal government should be very concerned not to set a bad, overly possessive example in the handling of its own copyright portfolio. It should be more conscious than any other body of the great "external" benefits to society that flow from the broad distribution of useful information. It should guard against the potential that a newly awakened consciousness of the market value of material subject to Crown copyright might in a few cases be used as a ground for withholding from the public information that the public ought to have. The fundamental purpose of new information technology should be seen as that of expanding access to information, not only internally within the government, but also externally, for the benefit of the public at large.

(d) Cable Television

Cable television systems provide an antenna service for television and FM radio stations as well as a delivery system for programs created in other facilities. They are, in fact, a major component of what is referred to as the "wired city". At present the courts have placed these operations in a unique position as related to copyright, because they are not considered to be wireless "broadcasters" to the "public". This situation no longer seems to be justified for all purposes, and some changes in the copyright statute will be needed to adjust for this. There are several separate sets of circumstances.

Copyright problems arise at the junction points or "interfaces" between wireless and cable radio-television systems. It should be clearly understood that what is said about them here is limited rather strictly to the copyright aspect and may require some modification in the light of

other important government policies affecting television that are now in the course of development.

From purely copyright and creator-incentive standpoints, the easiest "interface" situation to analyse is one where a cable system picks up and retransmits, without alteration, the mixture of program material and advertisements broadcast by an entirely commercial wireless system. This situation might be virtually self-adjusting. The advertisers on the wireless system would obtain extended market coverage; for this reason they could and should be charged higher rates, and the resulting higher revenue for the wireless system would provide an excellent basis on which performing-rights societies and other copyright owners could negotiate larger royalties. Some advertisers, such as those selling into geographically limited markets, might not greatly value the extended coverage provided to them by the cable system, but they would tend to be replaced by those who did, and to go off in search of more suitable broadcasters or other media.

This would not work, however, if in retransmitting broadcasts the cable system dropped some, or all, of the advertisements carried by the wireless system. Nor, of course, would it work if the wireless system was a non-commercial, nonadvertising operation. In these cases, some more formal arrangements for directing an appropriate stream of income back from the cable system to the holders of copyright in the broadcasts of the wireless system would seem called for. As a general principle, good incentive policies should normally try to remunerate information-processors in proportion to the number of consumers that they reach.

All this might be facilitated by a basic reporting rule that a cable system must always inform some central body, such as the Canadian Radio-Television Commission:

(a) whether it is picking up and retransmitting a wireless broadcast; and

(b) whether in retransmitting that broadcast, it is altering it in any way, such as by dropping or replacing advertisements.

Where alteration was occurring, or where the cost of the wireless broadcast was not carried by advertising, the cable company might be required to provide appropriate recompense to copyright owners either by compulsory licensing or through negotiated arrangements with the wireless system.

The diffusion and extension of broadcasts over national boundaries -- whether by cable, satellite or other means -- raises further problems. Many of these problems are much more than copyright problems and a good number of them will have to be dealt with by international treaty. There will, however, be some associated copyright problems, and some of these, too, will have to be solved by intergovernmental agreement. All such problems are likely to grow even more difficult when satellites capable of beaming programs direct to home receivers rather than through ground stations are shot into the sky. On this, as on other copyright matters affecting more than one department of the federal government, appropriate arrangements should be made for interdepartmental study and consultative action involving the Department of Consumer and Corporate Affairs and bodies such as the proposed Copyright Advisory Committee.

Copyright problems also exist for programs carried by the cable systems when the originator is not a wireless broadcaster. The cable owners may set up their own studios, or they may carry programs produced by others. Both of these options now exist collaterally in educational television and are expanding to other situations such as community cable programs. In accordance with one of our earlier guidelines, the technological mode of transmission to the public -- be it Hertzian waves or coaxial cable -- should not in general make a difference to the copyright status of works being transmitted. Therefore, the law should ensure that producers of programs for direct transmission by cable are in the same copyright position and have the same responsibilities towards authors, composers, etc., as those who produce programs for wireless transmission. The *direct* line of responsibility to the author or other copyright owner should go from the program-*originator*, who may sometimes be the cable operator himself and sometimes an outside contractor.

CONCLUSION

Given the nature of its subject, this chapter has necessarily been a long and detailed one, even though solutions to a good many important copyright problems have been left to the proposed Advisory Committee and Appeal Board. It may be well, by way of conclusion, to summarize briefly the specific recommendations made and to say something about the broader context of copyright in Canada.

The chapter of course sets forth some general guidelines designed to aid in the progressive evolution of Canadian copyright law and policy over the next decade or so. Its specific recommendations for changes in the existing law are, however, relatively few. They include, notably, the development of the copyright registration system, the setting-up of a Copyright Advisory Committee, the reconstitution of the present Copyright Appeal Board, broader provision for the use and regulation of "copyright collectives" and the performing-rights-society approach to copyright enforcement, the removal from the present legislation of import barriers and of a potential (but a present inactive) secondary right in sound recordings, the provision of new broadcast and typography rights, and the specification of rights in certain kinds of computer output. Most of these recommendations would if implemented tend to have a positive impact on the incomes of authors, artists, publishers, broadcasters and other producers. The removal of import barriers would have its main direct impact (a negative one) on the incomes of distributors of foreign books in Canada, but there would be benefits to Canadian consumers.

We would go far beyond both our terms of reference and the scope of our research were we to recommend solutions to all of the wide range of immediate problems faced by the Canadian publishing industry and other information industries. However, in two particular areas closely related to copyright, we have expressed a preference for positive and constructive as opposed to defensive and protective solutions, and we would warn against policy remedies that might attempt to freeze information industries into set patterns. These patterns are undergoing a process of dynamic change as part of the information revolution, and while this process should certainly be consciously managed and controlled, the many potential public benefits of the changes that are occurring should be recognized and accepted.

It is highly relevant for our purposes here that in the long run, and notwithstanding some acute short-term difficulties, the cultural climate in Canada appears to be growing more favourable for artists of all kinds. Creative Canadians and their producers, publishers and other associates should be able to look forward, if not to Easy Street, then at least to a more receptive and otherwise encouraging environment than they have known hitherto.

They have a larger, more literate and better-educated public with which to communicate; a rise of national consciousness has helped to bring about a fresh growth of interest in the Canadian past, present and future; and a proliferating technology holds the promise of making the effective conveyance of messages from authors and others to the public very much cheaper and quicker. To realize this promise more fully, while making convenient, if sometimes comparatively novel, arrangements for a suitable return flow of income and incentives to further creative work, is the real crux of most copyright issues today.

CHAPTER 8

TRADEMARKS

In requesting the Economic Council to examine trademarks in the light of Canada's long-term economic objectives, the Government has, in effect, asked the Council to develop a view on the appropriate role of trademarks in our economic system and on how this role may be most efficiently carried out. An examination of the trademark system has accordingly been undertaken beginning with an outline of the history and development of trademark legislation and a summary of the major features of the present Trade Marks Act. Some economic features of the present system are then considered, including the problems that arise from the uncertain purpose of a trademark under current legislation. Finally some suggestions for remedying the problems and for enhancing the economic benefits that could be derived from the system of trademarks are made.

A *trademark* is now used to distinguish wares or services manufactured, sold, leased, hired or performed by a particular trader. *Certification marks* and *distinguishing guises* are particular forms of trademarks. The former are used to indicate wares or services conforming to some owner-defined standard which may relate to the character or quality of goods, the working conditions under which they are produced, the class of persons involved in producing them, or the area where they are made. "Harris Tweed", for example, is a certification mark and the specifications as to what constitutes "Harris Tweed" are carefully laid down by its owner. Distinguishing guises are recognizable shapes or modes of packaging meant to act in a manner that permits some form of recognition for one producer's product or wares compared with another's.

A number of other terms are frequently mentioned in connection with trademarks. A *trade name* is the name under which a business is carried on, which may be the name of a corporation, a partnership or an individual. *Registered* or *registrable trademark* is a term applicable only to those trademarks which have been or will be accepted for registration by the Registrar of Trade Marks under the provisions of the Trade Marks Act. A *brand name* is only a popular term often used to mean one or another of the specific legal terms.

THE DEVELOPMENT OF TRADEMARKS

Trademarks have a long and interesting history. In Egypt, the use of marks on jars, tools and building stones was prevalent for 30 centuries before the Christian era. Coats of arms, silver marks and innkeepers' signs were later forms. In their original use, trademarks were probably simple marks of ownership, but they soon came to assume the role of identifying the maker of the goods to which they were attached. It was in this capacity that trademarks were used by the guilds to guarantee quality and to control entry to particular trades. The similarity to today's certification marks is apparent. "Design marks" as opposed to "word marks" may have been originally associated with an illiterate clientele. The use of marks, however, was relatively limited as long as most purchases were made directly from the maker. It was not until the nineteenth century that they gradually began to expand their modern role as items of commercial property or assets used in the process of production and distribution. In this role, they may sometimes have considerable asset value -- a reflection of the goodwill associated with the mark.[1]

Trademarks did not possess a strong role as symbols of goodwill so long as producer and consumer were in close contact. It was not until the second half of the nineteenth century, when the Industrial Revolution was well advanced, that trademarks received recognition from governments by statutes establishing registration systems. Prior to that time, such protection as they received was under common law in the courts, where procedures were costly, slow and uncertain, and a great deal of trouble and expense might be incurred in proving the identity or character of the goods which were passed off as the goods of another. One reason for passing trademark statutes was for the express purpose of making it easy to afford protection to traders at less expense and less trouble.

---

[1]This and following sections draw heavily upon Harold G. Fox, *The Canadian Law of Trade Marks and Unfair Competition*, Second Edition, Toronto, The Carswell Company Limited, 1956.

The Merchandise Marks Act of 1869 in England, the Federal Trade Mark Act of 1870 in the United States, the Law for the Protection of Marks in 1874 in Germany, and the Canadian Act of the Province of Canada in 1860 formed the basis for subsequent development of statute law and for trademark systems based on registration in these countries. In England, the United States and Canada, the right to exclude others from the use of a trademark existed in common law quite apart from its registration, which merely confirmed this right. In Germany however, the right depended upon registration. The use of the mark was not a necessary precondition and in principle was not even a necessary accompaniment to the possession of the right. Thus the conditions for use vary with national laws.

The law of trademarks today is regarded by the legal profession as a branch of the law of industrial property, directly related to the law on patents, copyright and designs. However, a trademark differs from these other forms of protection. The right represented by a trademark is in the device or symbol itself and not in the idea or the wares with which the mark is associated. The economic value of the trademark is, of course, related to the ideas which it conveys. As far as the trademark legislation alone is concerned, anyone is free to make identical wares or perform similar services; the exclusive right applies only to the use of the particular mark in association with these wares or services. Trademarks differ, too, in not being subject to a maximum term. The right to a registered trademark is contingent only upon use and renewal of the registration every 15 years.

TRADEMARK LEGISLATION IN CANADA

In Canada, federal authority over trademarks is derived from federal powers in the field of trade and commerce. Patents and copyright, in contrast, are explicitly assigned to the federal government. Federal authority over trademarks nonetheless appears to be well established. The Trade Mark and Design Act of 1868 was the first Act after Confederation to deal with trademarks. It established a trademark register, provided penalties for fraudulent use of trademarks (uses "intended to deceive") and gave the owner a right to sue any infringer who used the mark. Trademarks were defined, and a distinction was made between general and specific trademarks,

the latter applying to trademarks used in connection with the sale of a specific class of commodities only, while the former could be used for various articles produced or sold by the proprietor. The owner of a registered trademark was offered more certain protection of his mark than the owner of an unregistered mark. The Act was amended a number of times and then largely repealed by the Unfair Competition Act of 1932. This in turn was replaced by the Trade Marks Act of 1953,[1] which is the statute in force at present.

The 1953 Act incorporated most of the recommendations of the Trade Mark Law Revision Committee which reported in January 1953. The Committee's appointment was precipitated by changing trade practices with respect to trademarks, in the light of which many of the provisions of the Unfair Competition Act of 1932 had become outmoded and unsuitable. In particular the practice of licensing trademarks was growing despite its illegality under the then-existing law. The Committee itself noted that "... considerable numbers of trade marks now registered in Canada would necessarily be held invalid if examined in the light of the manner in which they have been used commercially. Many Canadian subsidiaries of foreign corporations have so used their trade marks as to invalidate them...."[2] Shortly after the Committee reported and the Trade Marks Act was passed, trademarks along with other items of industrial and intellectual property were referred to the [Ilsley] Royal Commission for further study. This Commission, finding itself fully occupied with patents, copyrights and industrial design, asked to be relieved of trademarks, and its request was granted.

To be eligible for registration, a trademark or trade name must be used (or proposed to be used within six months), to distinguish wares or services. It must not be "confusing" with any other trademark or trade name, in the sense that its use would be likely to lead to the inference that the associated wares or services are manufactured or sold by the owner of the other mark. The use of certain emblems or symbols is prohibited, as are

---

[1]Residual sections of the Unfair Competition Act were embodied in the Industrial Design and Union Label Act while parts of this other Act were put into the Trade Marks Act in an odd bit of statutory shuffling.

[2]*Report of the Trade Mark Law Revision Committee*, Ottawa, Queen's Printer, 1953, p. 38.

most names of individuals and all terms which are clearly descriptive or deceptively misdescriptive of the wares or services.[1] Applications for registration must designate the wares or services involved and establish the use or proposed use of the mark. If a certification mark is sought, the particulars of the defined standard must be indicated in the application.

After a preliminary review of the application to ensure that the trademark is registrable, it is advertised by the Registrar of Trade Marks. If the application is not opposed, the mark is duly entered into the register. The register itself and all related documents in connection with the application are open to public inspection, although only at the Trade Marks Office. Registration of the mark must be renewed every 15 years. Marks may be licensed for use by someone other than the registered owner and ownership may be transferred, either separately or in connection with the whole or part of the goodwill of the business, to another owner. Such agreements or assignments, which are discussed at greater length below, may be registered in the Trade Marks Office, but this is not now obligatory.[2]

Registration of the mark may be cancelled (expunged) under certain circumstances. The Registrar has power to expunge the mark upon request of the owner or if investigation by the Registrar reveals that it is not in use in Canada. The Exchequer Court may order any entry in the register that "does not accurately express or define the existing rights of the person appearing to be the registered owner of the mark" struck out or amended.[3]

---

[1]Among the prohibited marks are governmental crests or coats of arms, the Red Cross symbol, the name Royal Canadian Mounted Police, and several other such symbols (Trade Marks Act, Sections 9 and 12).

[2]The references to assignment and licences in the Trade Marks Act, Sections 47 and 49, are not fully clear. The Exchequer Court, *Wilkinson Sword (Canada) Limited v. Arthur Juda, 1966*, noted that assignments need not be registered to be valid. The status of registered users has not been decided yet, however, and it is uncertain if the requirements are permissive or obligatory (Section 49(1)).

[3]Trade Marks Act, Section 56(1).

Applications for such changes may arise from the Registrar or any interested person who applies in the prescribed manner.

The Act of 1953 made provision for the licensing of trademarks and, for the first time, a trademark could legally be applied to goods and services produced or marketed by someone other than the owner. In this way an historic function, as an indication of personal source or origin, was altered. In Canada, as in England, such licence agreements must be applied for and registered, with licensees being known as registered users.

Application for registered use must be filed with the Registrar by both the owner of the trademark and the applicant, who are required to furnish the Registrar in writing with:

-- particulars of the relationship, existing or proposed, between them, including particulars of the degree of control by the owner over the permitted use which their relationship will confer;

-- a statement of the wares involved;

-- particulars of any conditions or restriction proposed with respect to the characteristics of the wares or services, to the mode or place of permitted use, or to any other matter;

-- information about the proposed duration of the agreement; and

-- other information as the Registrar may require.[1]

Agreements are registered only after passing a "public interest" test by the Registrar. "The Registrar may approve a person as a registered user of the trade mark for any of the proposed wares or services, subject to any conditions or restrictions that he considers proper, if he is satisfied that in all the circumstances the use of the trade mark in association with such wares or services by the proposed registered user would not be contrary to the public interest."[2]

---

[1]Trade Marks Act, Section 49(5) (paraphrased).

[2]*Ibid.*, Section 49(7).

In practice, not all applicants fully disclose the particulars of their relationship. In addition, the "public interest" criterion is very incompletely discussed in the law, and its interpretation is the Registrar's. With respect to agreements between unrelated companies, for example, the Registrar merely satisfies himself that the owner of the mark has made provision for inspection or sampling of the wares of the licensee at the owner's discretion. No assurance that such inspection will indeed be undertaken at regular intervals is required, and agreements between related companies are not scrutinized for inspection or sampling provisions. ("Related companies [are] members of a group of two or more companies one of which, directly or indirectly, owns or controls a majority of the issued voting stock of the others.")[1]

Registration of licensing agreements may be cancelled on the application of either party to the agreement, by the Registrar, or by the Exchequer Court. The Registrar may cancel the agreement with respect to any wares for which the trademark itself is no longer registered. The Exchequer Court may cancel an agreement on several grounds: if a registered user has used a trademark "otherwise than by way of the permitted use", or in such a way as to cause confusion; if either the owner or the user has misrepresented or failed to disclose a relevant fact upon registration; if circumstances have changed in such a way that the application would, if currently made, be refused.

The Trade Marks Act is administered by the Trade Marks Branch of the Department of Consumer and Corporate Affairs in accordance with the regulations issued under the Act. The Branch is under the direction of the Registrar of Trade Marks and employs about 70 persons. Its revenues in recent years have been as much as $300,000 in excess of its expenditures.[2] The Branch is responsible

---

[1] *Ibid.*, Section 2(r). An examination of registered-user agreements undertaken in 1961 revealed that a rising proportion of the total number of agreements was between unrelated companies.

[2] Persons applying for trademarks usually consult an agent. There are approximately 1,600 registered trademark agents in Canada. The cost of registering a trademark includes the agent's fee and $50.00 in fees payable to the Trade Marks Office. The renewal fee is $15.00 every 15 years.

for maintaining the trademark register and for publishing the Trade Marks Journal each week. The Journal contains current applications for trademark registration and has a circulation of about 500. Libraries and other government departments receive free copies. The number of registrations in several recent years is indicated in Table 8-1. The growing gap between applications and registrations reflects both the withdrawal of some applications and a backlog of applications awaiting registration.

Table 8-1

SELECTED TRANSACTIONS OF THE TRADE MARKS BRANCH

	1961-62	1962-63	1964-65	1966-67	1968-69
Applications	6,672	6,465	7,355	7,988	9,351
Registrations	4,438	4,620	4,824	5,704	5,976
Renewals	1,961	2,657	2,821	2,914	3,504
Expungements	1,609	1,675	1,872	1,618	2,142
Transfers	3,335	2,887	3,685	4,155	5,449
Registered-user registrations	2,775	2,577	2,784	4,142	4,837
Registered-user cancellations	749	611	881	1,534	1,662

Source: Information provided by the Trade Marks Branch, Department of Consumer and Corporate Affairs.

The growing use of trademarks in commerce in Canada, to the degree that this can be inferred from the increase in applications,[1] is probably a reflection of their growing use on a worldwide basis. The growing number of registered trademarks may also reflect a growing desire to enter into licensing agreements.

[1]The number of unregistered marks is not known. Applications for registered trademarks increased from 4,146 in 1950-51 to 9,351 in 1968-69. A total of 114,904 marks were on the register as of March 31, 1970.

The Registrar is required to exercise discretion in several different circumstances. The primary decision as to whether a mark is "confusing" and hence should be disallowed or restricted is initially his to make. In addition, he must decide upon the validity of circumstances excusing a failure to use a trademark. As noted above, he is also required to make a "public interest" evaluation with respect to the registered use of trademarks. Some of these discretionary activities, as will be evident later, may be of considerable interest with respect to the economic effects of the system.

Trademark owners acting in their own interests to protect their mark provide the major source of support for an orderly trademark system.[1] The federal government

---

[1]Some evidence on the volume of litigation with respect to trademarks was contained in the brief to the Economic Council by the Canadian Manufacturers' Association. Response from over 1,000 of the 6,400 member manufacturers (most of whom are small manufacturers) to whom a questionnaire was sent in 1967 revealed that a high proportion of companies in the food and beverage industry, the rubber, chemical, clothing, and nonmetallic minerals industries owned trademarks. The chemical, rubber, textile, and paper industries reported the highest incidence of licensed users of trademarks owned by foreign companies. Of the 832 companies responding to a question asking whether they were involved in litigation with respect to trademarks, 12 per cent responded in the affirmative. The degree of this involvement appeared to be positively related to company size as well as to the industry in which the company was located.

Size (by employees)	No. of Responses	Percentage Involved in Litigation
Less than 100	415	7
100 - 1,000	345	12
1,000 - 10,000	64	34
10,000 and over	8	50

can also initiate actions under the Trade Marks Act. Also the provincial governments, under the Criminal Code or the Trade Marks Act, can move to enforce the various prohibitions on any unfair trade practices which are found. The Criminal Code also allows for actions to be initiated by private individuals.

The International Convention for the Protection of Industrial Property, founded in Paris in 1883, contains provisions relating to trademarks which are designed to protect the interests of trademark owners of the member countries in their dealings in other member countries. The Convention has been revised a number of times, and member nations adhere to the Convention at different levels of revision. It is, however, only as the provisions of the Convention find their way into legislation in the ordinary way that they become binding upon Canadian subjects. In 1951, by Order-in-Council, Canada adhered to the London revision of 1934. Provisions now embodied in the Act grant rights to foreigners which are similar to the rights granted to residents. In more recent years, Convention revisions appear to have been dominated by a concern for the rights of the industrial property holders. Canada should give careful consideration to the need for a more balanced view of the needs of users and producers of industrial property, that is, by giving some expanded concern for consumer interests.

There are a number of other statutes, in addition to the Trade Marks Act, which deal either with the regulation of unfair competition or the labeling and sale of various commodities. Among them are such Acts as the Canada Agricultural Products Act, the Food and Drugs Act, the Combines Investigation Act, the National Trade Mark and True Labelling Act, and the Timber Marking Act. There may well be a need for more co-ordination in the administration of these statutes, since they do interact in several ways.

SOME ECONOMIC EFFECTS OF THE TRADEMARK SYSTEM

Until recently the emphasis in studies of the trademark system has been on the interaction among business firms who wanted protection against their trademarks being used to misrepresent another's goods or services as their own. This is of course a proper approach for them to take

for they have nothing to gain by such "passing off" or misleading use of trademarks identifying their businesses. However, the indirect intention as far as the businessman sees it is simultaneously a direct effect as far as the buyers see it. Purchasers are interested in the trademark as an indicator of some identification with a particular producer and his quality. Since the two approaches are really different sides of the same general pattern of interest, they both warrant attention. However, since we believe the buyer's interests have received inadequate emphasis, we stress it in our review. Nevertheless both sides must continue to receive attention since they are both related to the long-term economic interests of all Canadians.

The Buyer Interest

Among the beneficial economic effects of trademarks, whether registered or unregistered, on which we concentrate attention, are those arising from the information that trademarks may convey to buyers. On the other hand, trademarks may also impose costs on an economy arising from the rights granted to trademark owners. The direction and probable magnitude of these effects -- the "desirable" effect on the composition of output via better-informed buyers' decisions and the "undesirable" effect on the efficiency with which this output is made available -- must be central considerations in an assessment of the trademark system in the light of long-term economic objectives.

Some of the benefits of a trademark system are directly associated with the information it can convey about the source or origin of services or products and thus by implication about their performance. While a trademark may add little to the information of buyers faced with goods or services whose performance characteristics are clearly visible, it is potentially very useful in connection with the growing number of services and products whose performance characteristics are not apparent upon inspection. A trademark system, for example, may be particularly valuable in connection with complicated consumer durables, or with products marketed in sealed packages or containers. It may also be valuable in connection with services, whose characteristics cannot be readily examined in advance of their purchase and may be employed only infrequently. Used to convey information about unusual "conditions of sale", such as warranties

or guarantees and other buyers' recourses, which by their very nature are not apparent upon physical inspection, it is also helpful.

The importance of good information was noted in the *Interim Report on Consumer Affairs*.

> "High standards of performance in the Canadian economy -- including particularly the maintenance of high employment, strong productivity growth and reasonable price stability -- will provide a basis for achieving important and continuing improvements in consumer welfare and real living standards. However, these improvements will only be realized fully and effectively if adequate attention is paid to the process of relating productive efforts as closely as possible to the needs and aspirations of consumers. To a large extent this can be achieved by the operation of flexible markets sensitive to changing consumer preferences. But there are some areas in which an active and continuing concern with public policies designed to protect and promote consumer welfare would lead to improvements in living standards. More generally, consumer welfare will also be enhanced by measures which seek to improve consumer information, education and understanding."[1]

To the degree that trademarks add to buyer information by indicating the manufacturer or seller who "vouches for" a product, they open the way to more efficient purchasing decisions. The risk of unsatisfactory purchases is reduced, and expenditures of any given amount are likely to yield greater satisfaction. The time spent in searching for satisfactory products may also be reduced, time that must be regarded as a hidden, but nevertheless real, economic cost.

The improvement in market information provided by trademark information affects spending patterns. These, in turn, affect the subsequent composition of output. This improvement in information also may increase the value of final output. Even without an increase in available productive resources, the value of final output will be greater than it otherwise would be if consumers' wants and

---

[1]Economic Council of Canada, *Interim Report on Consumer Affairs*, Ottawa, Queen's Printer, 1967, p. 19.

the pattern of output are more closely matched. It is this improvement in decision-making as fewer wasteful and disappointing expenditures are made -- an improvement ultimately reflected in improvements in the composition of output -- which is a basic economic argument for a strong and effective trademark system.

It is helpful to make some evaluation of the effectiveness of the trademark system as a conveyor of buyer information. The result of this seems to be that this function has not been served as well as it might. Among the reasons for this is the fact that the predominant emphasis in the law has been related to the protection of the producer's or seller's interests, which only indirectly serves the buyer's interest in having more complete and better information. This pattern of emphasis means that many of the potential benefits related to this aspect remain undeveloped. Another reason of course is that the trademark itself is only a very abbreviated way of expressing the full set of qualities of a product or service, and this constrains some of the extent of the product information role. Nevertheless important improvements can and should be made.

Historically the trademark was considered a mark of origin, an indicator of a particular manufacturer or seller that distinguished his wares or services. Various economic reasons created a set of circumstances where it was not considered feasible to restrict it to this original intent. Therefore the 1953 revision of the law made provision for legal licensing of registered users of a trademark. This was a major shift in policy and it had several potentially harmful effects related to the meaning of a trademark. Presently the legal profession is divided on the question of whether the statute, Section 49, makes it obligatory to register a licence because the term "may" can potentially mean the provisions are only permissive. A recent case, *Wilkinson Sword v. Arthur Juda,*[1] clarified that an assignment of a registered mark, under Section 47, must be adequately publicized so that the public is not misled about the origin of the product after an assignment. It seems reasonable to us that a similar result would be desirable in the case of registered users, or licensees, but so far no court decision has come about to clarify this situation. In addition, as situations

---

[1]*Wilkinson Sword (Canada) Limited v. Arthur Juda,* 1966, *op. cit.*

sometimes arise in the market place, one court decision is never a guarantee that all business practices will conform to its decrees. There is, then, good reason to consider clarification of the statute and some attempts at a preventive policy, rather than wait until some buyers are misled and launch further court cases.

Effectively then, ignorance about the full meaning attached to a trademark can stem from the confusion that is inherent in the present system. A mark may, for example, be a mark of origin, indicating the source of the product. It may, on the other hand, if used by a licensee, be intended to indicate not source but "quality". The *Report of the Trade Mark Law Revision Committee* in 1953 suggested, without indicating how this was to be accomplished, that all trademarks should thenceforth indicate "quality".[1] The use of a trademark may be confined to the output of a single standard product, all of which bears the same mark. On the other hand, some part of this output may bear a different mark belonging to the same manufacturer, or be marketed under different marks by different makers. A particular mark may apply to a related or unrelated line of products, or to some or all of the different "quality" models of a product. It is reasonable to say that with so many uses a state of uncertainty prevails. Frequently it is merely a marketing device designed to attract attention. Since the owner is not required to disclose his intentions, and indeed may freely transfer the mark to another owner, the trademark as a symbolic device intended to convey information on "quality" to potential buyers is less meaningful than it might be.

Such information that familiar trademarks could convey (and only a small fraction of trademarks in use are familiar to any single person) must therefore come through other channels. It is by no means clear that, in its present state, a trademark adds anything to the information these other channels convey. The use of a trademark is neither a necessary precondition nor a necessary accompaniment for these other channels to become operative. Buyers

---

[1]There has been some question about the range of considerations which were weighed by the Committee in coming to this conclusion. See N. M. Thurm, "Registered Users and the Public Interest", *Bulletin*, Patent and Trade Mark Institute of Canada, Series No. 7, vol. 2, June 1962.

of trademarked products may invest a mark with meaning which comes not from the mark itself but from personal experience with a product or line of products; information informally obtained from friends or acquaintances; published product test results; records of accidents or legal actions; recommendations made by professional persons prescribing particular items; product testimonials paid for by the producer; favourable or unfavourable comment provided by sales persons; and other similar sources.[1] Only when such information is associated with a trademark by a potential purchaser of a product or service does the mark become invested with economic value; and only when such information reflects favourably on the trademark does it become invested with private worth to its owner.

If a trademark has substantial value as a commercial asset (i.e. has significant revenue-generating potential), there should be a strong incentive to maintain this value. On the other hand, a firm with a mark that is playing only a small role in generating revenue could well be inclined to indifference or to experiment, and hence the significance of its mark may vary considerably from time to time or from product to product. The trademark system itself puts no particular pressure on trademark owners to maintain or enhance the value of this particular asset nor even to stabilize its meaning. When it is assigned to another owner, the original owner usually loses control over the services or products associated with the mark.

The potential direct economic benefits of a trademark system for buyers, it must be concluded, are inadequately realized at the present time. In the current state of uncertainty as to the meaning of a trademark (Is it "origin", and if so how is this defined? Is it "quality", and if so how is this defined? Or is it "conditions of sale", and if so what conditions?), wasteful and inefficient purchasing decisions are unlikely to be reduced to the degree they might be, were that uncertainty

---

[1]It has been suggested that trademarks are only intended to convey information with respect to repeat purchases directing the buyer towards or away from a product he has already tried. This theory breaks down, however, because there is no assurance that, over time, changes in product performance for either better or worse will be reflected in changes in the trademark.

removed. The discrepancy between what the system could accomplish in a direct way and what it actually is accomplishing in this dimension greatly abridges its potentially useful contribution to long-term economic objectives.

It is also worth noting at this point that there are a number of methods, in addition to a trademark system, by which the objectives of better-informed markets can be pursued. Trademarks as conveyors of information must in fact take their place among a host of devices designed to convey information. These devices may or may not be actually attached to the product. They include advertising, labeling, disclosure provisions, sales talks, grades and standards, consumer publications, catalogues, and instruction manuals. These are often used in conjunction with the use of trademarks. The practical role of the present trademark system must, to some degree, be weighed in the light of these alternatives, and possibly the expectations put on it re-examined.

Set against the consumer benefits that a trademark system can provide, are the economic and administrative costs entailed in its operation. The most significant of these costs arise from the grant to a trademark owner of the exclusive right to control the use of his trademark and the articles to which it is attached. Some of these costs are a necessary part of a well-functioning trademark system. However, consistent with such a well-functioning system, it is important to consider appropriate ways in which such costs could be minimized, perhaps especially in the case of the largely invisible costs that may arise as a result of restrictive trade practices that can occur under the shelter of this grant of exclusive rights. Illustrations of such practices are contained in the hearings of the Special Committee on Drug Costs and Prices and the recently published Report of the Royal Commission on Farm Machinery.[1]

---

[1]Special Committee on Drug Costs and Prices, *Minutes of Proceedings and Evidence*, No. 34, Ottawa, Queen's Printer, 1967; and Royal Commission on Farm Machinery, *Special Report on Prices*, Ottawa, Queen's Printer, 1969.

The direct costs of a trademark system consist of the costs to both buyer and seller, and to the government. They may embrace such elements as design cost, registration and renewal costs, agents' fees, the actual costs of marking or designating wares, the cost to the buyer of learning the significance of a mark, and the costs to the government of operating a registration system and system of courts for litigation.

While there will always be direct costs associated with any trademark system, it may not be necessary to incur the present level of costs in order to realize the potential benefits of trademarks in improving the composition of output. There are many ways in which governments can and do intervene in economic activity to alter the composition of output, and the creation of a trademark system is but one of them. Registered trademarks constitute a deliberate grant of a right which confers economic power -- power which can unfortunately be misused by the recipient to restrain trade and to qualify the application of competition policies. In the case of the trademark system, the rights may be regarded as having been granted in order to encourage the use of symbols indicating the source of products.

It has been argued above that the major purpose of a trademark system is to alter the composition of purchases in favour of goods having trademarks which have valuable and indicative meaning. The direct costs of establishing and operating such a system, as well as the indirect costs that may be incurred if the system itself shelters inefficiency, must be weighed against this objective of a more informed pattern of purchases.

The Producer Interest

The doctrine of "unfair competition" which regulates relationships between competitors is necessarily restrictive of trade in a literal sense. The trade practices which it restricts, however, must be regarded as being of a harmful nature. Unfair competition laws attempt to prevent disorderly and "confused" markets such as occur when competitors and consumers are damaged by

misrepresentation and fraud.[1] Restricting this type of trade practice and preventing unfair competition of this sort ultimately improves trade by reducing such risks. But of more immediate concern are the types of trade restrictions which might serve to regularize relationships between competitors without benefiting consumers, or which might actually damage consumers by shielding inefficient business practices.

Legal protection of a trademark by the courts was originally available only when deliberate deception had occurred, but as the notion of proprietary rights in a trademark gradually developed, the law too developed to embrace the protection of this private property right. Thus a trademark, an "incorporeal franchise", is today protected against trespass in much the same way as real property is protected. The protection of the public interest against fraud and misrepresentation and the protection of the trademark owner against trespass are therefore not identical. In the early development of the common law, protection was only available to the extent that an owner's interests were damaged by a competitor. To gain relief against another person who was using his trademark, the owner had not only to establish his own

---

[1]A prohibition of unfair trade practices is currently embodied in the Trade Marks Act, Section 7. It provides that "no person shall a) make a false or misleading statement tending to discredit the business, wares or services of a competitor; b) direct public attention to his wares, services or business in such a way as to cause or be likely to cause confusion in Canada, at the time he commenced so to direct attention to them, between his wares, services or business and the wares, services or business of another; c) pass off other wares or services as and for those ordered or requested; d) make use, in association with ware or services, of any description that is false in a material respect and likely to mislead the public as to (i) the character, quality, quantity or composition, (ii) the geographical origin, or (iii) the mode of the manufacture, production or performance of such wares or services; or e) do any other act or adopt any other business practice contrary to honest industrial or commercial usage in Canada."

use and right to the mark, he had also to establish that his goods were sufficiently similar to the competitor's goods that public confusion and deception had resulted. The *likelihood* of confusion between wares of a related character was later regarded by the courts as adequate. At the present time, however, the protection afforded trademark owners is substantially greater than would be available were public damage or the likelihood of public damage the only criteria. "Proof of actual deception being unnecessary in an action either for infringement or for passing off, and proof of economic injury to any member of the purchasing public never having been offered in evidence in any case, it is apparent that it is not the public interest which in fact motivates the court but the improper invasion of the plaintiff's property rights."[1]

The development of the law on trademarks is thus closely associated with the growth of policies governing many of the practices of businesses towards their competitors. The development of the law on unfair competition -- from the simple prohibition of fraud to the present provision which forbids any person from doing any act or adopting any business practice "contrary to honest industrial or commercial usage ..." -- has been concurrent with, and affected by, the changing role of trademarks, and there would be little purpose in considering one without having some regard to the other. The focus of the law on unfair competition is the relationship between competitors. As noted above, the public interest may or may not be directly involved. When it is involved, the relationship between the public interest and the law on unfair competition is not always clear. It is, for example, possible that a law which protects competitors may, beyond some point, come in conflict with the public interest in maintaining competition.[2]

General Resource Allocation Effects

It has been suggested that a number of economically wasteful business practices may be sheltered under the protection afforded by the Trade Marks Act, protection for the most part related to doctrines of unfair competition. To the degree that the Act does afford some shelter

---

[1]Fox, *op. cit.*, p. 728.

[2]See for example, the Robinson Patman Act in the United States.

from competitive pressures, it would not of course be surprising that it should be used as one of a set of devices by which special positions could be established or maintained, and barriers erected against potential entrants. The economic undesirability of permitting such enclaves to develop, insulated from the necessity of using resources efficiently, was made clear in the *Interim Report on Competition Policy*:

> "The institution and maintenance of a competition policy such as presently exists in Canada may be taken to reflect a belief that, over the greater part of the economy, competitive market forces are potentially capable of allocating resources better and more cheaply, with a less cumbersome administrative overhead, than any alternative arrangement such as government regulation of enterprise, or self-regulation by large industrial units within a corporate state. The function of competition policy is not to bring about a textbook regime of 'perfect' competition in all the various markets making up the system, but rather to encourage the liberation of the system's maximum competitive potential, 'imperfect' though this may be. The resulting competition is valued not for itself, but for what it can accomplish in putting resources to work efficiently and effectively. Thus the market does the job, and the government's main responsibility, so far as efficiency in resource allocation is concerned, is to see that the market is free to do the best job of which it is capable. Competition is relied upon as the prime mechanism of social control.
>
> "The legislation postulates the continuing existence of a free enterprise economy, actuated by the profit motive, in which those who wish to compete for economic gain should, to the largest extent possible, be allowed to compete free from artificial restraints imposed upon them by their competitors or other members of trade or industry. What Parliament contemplates, as expressed in this legislation, is the regulation of industry by the forces of competition rather than regulation by members of industry itself."[1]

---

[1]Economic Council of Canada, *Interim Report on Competition Policy, op. cit.*, pp. 8-9.

The possibility that the present trademark system may be one of a set of devices that afford some escape from the social control exercised by competitive pressure is thus a cause for concern. If certain provisions of the Act, alone or in conjunction with certain inherently restrictive provisions of other sorts including those contained in the Patent Act, can be used as non-tariff barriers to trade both domestically and internationally, then it is important to balance their usefulness in encouraging the use of trademarks against their potential damage to competition. Among the practices which, it has been suggested, may be sheltered by the present Act are price discrimination, tying arrangements, exclusive dealing, market-sharing arrangements of various sorts, restrictive licensing agreements, exclusive distributing arrangements, resale price maintenance and import restriction. Some of these practices are clearly undesirable; the desirability of others may depend upon a balanced judgment of their benefits and costs in particular circumstances.

Evidence in support of the detrimental effects of some particular arrangements has recently appeared in investigations of the drug industry and the farm machinery industry.[1] The Special Committee on Drug Costs and Prices made the following observations, which subsequently led to an amendment in the Trade Marks Act with respect to pharmaceuticals:

> "Earlier your Committee considered that regulations could not now be imposed that would prevent the use of brand names in the marketing and sale of drugs, as this could be out of character with present day commercial practice. Nevertheless, trade marks have an inhibiting influence on free and open competition in the pharmaceutical industry; and for this reason the Hall Commission recommended that the Trade Marks Act be amended to allow the importation of trade-marked drugs which have been produced by a company related to the Company owning or possessing the same Canadian trade mark, recognizing that trade-

[1]Special Committee on Drug Costs and Prices, *Minutes of Proceedings and Evidence, op. cit.*; Royal Commission on Farm Machinery, *Special Report on Prices, op. cit.*

> mark law can influence the level of drug prices directly and indirectly. Under present law the Canadian subsidiary of a foreign parent company can prevent the importation of drugs into Canada if these bear trademarks identical to those owned and used by it. This, of course, eliminates entirely any possibility of legally importing brand name drugs which may be selling at lower prices outside Canada and which, in fact, may in many instances be identical to those drugs manufactured by the subsidiary from bulk active ingredients imported from the parent corporation."[1]

Another situation involving trademarks in the farm machinery industry is cited in the *Special Report on Prices* issued by the Royal Commission on Farm Machinery. A warning was issued to a farm organization by a tractor manufacturer that violation of the trademarks legislation might be involved in the importation of tractors by persons other than dealers authorized by the company.[2] The possibility that there might be detrimental effects to Canadian resource allocation by virtue of the protection afforded by the trademarks legislation is suggested by evidence of a substantial difference between dealer prices in the exporting country and dealer prices in Canada on identical trademarked products. In the case of other industries, such price differentials may or may not be related to the use of trademarks as a nontariff barrier to trade, but at least in the case of the farm machinery and the drug industries, they appear to have been used to this effect. We are not sure where else they exist but the potential is there and this opportunity should not persist.

Such economic costs arising from restrictive business practices are either clearly undesirable, or at least questionable, for reasons discussed at length in the *Interim Report on Competition Policy*. The public interest is presumed to be protected against these costs by Section 30 of the Combines Investigation Act (designed

---

[1]Special Committee on Drug Costs and Prices, *Minutes of Proceedings and Evidence, op. cit.*, p. 2643.

[2]Royal Commission on Farm Machinery, *Special Report on Prices, op. cit.*, p. 209.

to prevent abuse of trademark and patent rights)[1] and by the provisions of Section 49(7) of the Trade Marks Act (designed to prevent licensing agreements which might be against the public interest). That we are adequately protected is doubtful, in light of the narrow interpretation of "the public interest" placed on Section 49(7), as discussed above[2] and unsatisfactory experience with Section 30.

RECOMMENDATIONS TO IMPROVE THE TRADEMARK SYSTEM

It is, of course, impossible to quantify, with any degree of precision, either the benefits or the domestic and international costs to Canada of the right to restrict trade granted to a trademark owner. For trademarks, as with patents and other forms of industrial and intellectual property, restriction of trade takes the form of what is essentially an invisible and privately imposed trade barrier, one which may influence prices and the allocation of markets within Canada as well as the flows of international trade. The only measured costs consist of some partial statistics on royalty payments to foreign countries. There are no comparable measures of costs within Canada or of the extent to which imports bearing a trademark confusing with that used by a Canadian producer or distributor are refused entry to Canada.

In respect of products produced abroad by an unrelated firm and bearing a trademark whose appearance is sufficiently similar to be confused with a trademark in use in Canada, either registered or unregistered, it is important that the Canadian trademark owner be allowed to exercise his right to restrict imports so that the entry of similarly marked goods into this country does not create confusion in the minds of buyers nor lead to charges of passing-off. However, in the case of foreign goods made by companies which have some equity relation-

---

[1]Section 30 sets forth the remedies available to the Exchequer Court in cases of the use of patents or trademarks unduly to limit production or to restrain or injure trade.

[2]Pp. 182-183.

ship to the Canadian owner, and in respect of goods traded within Canada, recommendations will be put forward in a later stage of this chapter in an attempt to significantly lessen the danger that the trademark system is imposing an unnecessary economic cost on the Canadian economy.

The present Canadian system, if judged in the light of long-term economic objectives, appears to require alteration in respect of three general areas -- the benefits which the system is capable of generating need to be enhanced, the economic costs inherent in its operation and enforcement reduced, and the meaning of the trademark clarified. The specific recommendations which follow attempt to provide ways and means of achieving desirable changes in these directions.

Protection Against Misuse of Trademarks

In order to give trademark owners a degree of protection sufficient to allow them to generate revenues and to continue to pursue the various desirable activities which a well-functioning trademark system can make possible, the system should enable owners of registered marks to defend at low cost their marks against passing-off or infringement. The present Canadian law now gives the trademark owner the right to collect from a proven infringer damages for the injury to the goodwill of the owner or, at the option of the owner, an accounting of profits made by the defendant by reason of his infringement. In addition, the owner is entitled to claim from the Exchequer Court an injunction against further action on the part of the infringer. There are also provisions in the Criminal Code, Sections 349 to 354, that relate to trademark misuse.

Apart from this prohibitory approach, the government should make every effort along positive lines to ensure that the cost of private action taken against alleged infringers is made as low as possible. For example, inspectors of the Department of Consumer and Corporate Affairs should assist in notifying owners of registered trademarks of suspected infringement. Also, the Office of the Registrar of Trade Marks should attach a high priority to keeping to a minimum the costs and delays of registering trademarks.

Reduction of Trade Restriction Potential

The potential for trademark owners to impede both the domestic and international flows of trade and to engage in other forms of restrictive trade practices under the umbrella of their trademark imposes in many instances unnecessary costs in terms of adverse effects on efficient resource allocation within the Canadian economy. The following recommendations are designed to minimize such unnecessary costs.

First, the right to restrict imports of goods bearing a trademark either identical or sufficiently similar to a mark currently in use in Canada as to cause confusion between the two marks in the minds of purchasers should be retained, but with two very significant exceptions. No owner of a Canadian trademark should be able to allege that the importation of goods produced by a related company -- that is, "members of a group of two or more companies one of which, directly or indirectly, owns or controls a majority of the issued voting stock of the others"[1] -- constitutes infringement of his mark. Similarly, when owners of Canadian marks are linked, either directly or indirectly, to unrelated companies through licensing agreements, the Canadian owner of the mark should not be allowed to restrict the importation of goods produced by the other company. The implementation of these proposals would have the effect of allowing entry into Canada of goods produced abroad by a foreign parent, subsidiary or linked company, bearing a mark similar, if not identical, to that used on products of the same type and quality produced by the Canadian owner. In most other circumstances, owners of marks registered in Canada should be able to assert in full their right to prevent the importation of products of an unrelated company that is deliberately infringing or that is the rightful owner of an identical mark registered in another country. But in order to protect the public interest in competition, the proposed Commissioner of Intellectual and Industrial Property should have the power to refer to the Competitive Practices Tribunal[2] any situation in which a trademark may be operating to inhibit imports in such a way as to have significant adverse effects on efficient use of resources in Canada.

---

[1]The Trade Marks Act, Section 2(r).

[2]Economic Council of Canada, *Interim Report on Competition Policy*, *op. cit.*, pp. 109-113.

None of the trade practices discussed in the *Interim Report on Competition Policy* is essential to the effectiveness with which the trademark system achieves its objectives. In that Report, it was proposed that price-fixing, resale price maintenance, and geographical market allocation within Canada, should be banned completely; there is no justification for allowing the trademark to be used to shelter such arrangements. In addition, the practices which we suggested should come within the ambit of the proposed Competitive Practices Tribunal should be subjected to that scrutiny, whether or not trademark agreements are involved. In other words, the existence of a trademark should not confer any privilege to engage in restrictive practices inconsistent with the operation of competition policy; nor should it in any way affect assessments by the Tribunal of the economic effects of various types of business practices. In this context, we have in mind such practices as tied sales, refusal to deal, and discriminatory pricing and franchising arrangements.

A prohibition of unfair trade practices is currently embodied in Section 7 of the Trade Marks Act. This Section deals with misrepresentation and passing-off and is used in private actions brought by owners of unregistered marks. In the past, however, it has not been vigorously enforced by government authorities. If the proposal to implement new types of marks, presented in a later section of this paper, is adopted, the right to initiate private action -- that is, suits brought by one competitor against another -- should be supplemented by more effective means for government action to protect the public. In addition, membership in the Paris Convention for the Protection of Industrial Property (Article 10 *bis*) obliges Canada to provide effective protection against unfair competition. In view of this, we recommend that Section 7 be more actively enforced and that penalties in the form of fines and expungement be provided. Moreover, we further recommend that this Section should be administered either by the Combines Branch or the Consumer Bureau of the Department of Consumer and Corporate Affairs, in conjunction with Sections 33C and 33D of the Combines Investigation Act (dealing with misleading advertising in respect of price and other matters) to which it is clearly related.

Adjusting the Meaning of a Trademark

Were trademarks entirely similar to other types of industrial property in that they too were the result of a once-for-all activity, it might be possible to stop at this stage, after setting forth proposals designed to promote the efficient administration of the system, and call the job done. However, to focus only on the prevention of passing-off is to ignore the second and perhaps more important function of the trademark system as it is currently used: conveying to purchasers relevant information to assist in their decision-making. If the trademark system is to perform this function effectively, the meaning of a trademark requires clarification and the administration of the system must be made substantially more effective.

The "registered-user" provisions were introduced into the Canadian trademark system in 1953. That change in the legislation has meant that those marks whose use has been licensed to persons other than the owner no longer play their historic role in signaling that the wares or services to which the mark is attached are those of the trademark owner. A mark licensed by its owner to another may attest to particular features of the product or service, but it is neither an indication of source, nor an assurance that buyers have recourse to the owner, should the performance of the product prove to be unsatisfactory. The very ambivalence pervading the marks that confront buyers in Canada today has resulted in a loss of much of the desirable economic effects which it would be possible to achieve were the meaning of the mark made considerably less ambiguous.

There are a number of ways in which the situation could be remedied and clarification enhanced. One could, for example, withdraw the privilege of licensing trademarks so that marks would again revert to their pre-1953 role as indicators only of source or origin. However, in some cases, there are valid economic reasons for these registered-user provisions -- for example, where the characteristics of the product are such that it is not feasible for the domestic market to be served from one production centre. Alternatively, the registered-user provisions could be retained on the condition that it be made clear to the potential buyer of the trademarked product whether the mark is intended to signify source or origin, or on the other hand to indicate characteristics

of the product or service to which it is applied. Another possible approach includes creating a new form of mark, concurrently used by the owner and by licensees, which would attest only to the features of the products. This new mark would, in other words, carry no implication as to source, as do many of the marks currently licensed. A similar objective could be achieved by treating licensed marks as certification marks. This latter mark testifies to the character or quality of the goods or services to which it is attached. However, this solution would require the removal of the restriction presently in the Trade Marks Act -- that the owner of a certification mark may not himself use the mark.

Categories of Marks

After careful consideration of these alternatives, we have concluded that there is a need for clarification of the forms of marks. Under the system that we propose, a person who wanted to register a mark would have three options:

-- he could register the mark as a trademark in the historic meaning of the term as an indicator of source or origin used only by himself (a TM mark);

-- he could register the mark as a "product mark" of which he is the sole user, but file "standards" which he defines on registration (a PM mark); if he licenses such a mark for use by others, this use should be registered (an LPM mark);

-- he could register the mark as a certification mark which is licensed for use by others, but which he does not use himself, filing standards which he defines on registration (a CM mark).

The similarity between the proposed new LPM mark and the certification mark raises the question of the possible desirability of merging the latter into the former. Nearly all current owners of certification marks, however, are organizations interested in the maintenance of certain independently defined standards, such as trade associations and standards organizations. There seems little to be gained in altering this pattern. Furthermore, the use of certification marks appears destined to increase

in the future, along with an anticipated rise in the formulation of performance standards under the sponsorship of the proposed Standards Council. We have therefore concluded that it appears to be desirable to leave untouched the present certification mark as an appropriate vehicle for this growth.

In eliminating the possibility that a licensed trademark will mistakenly be taken to indicate source or origin, the proposed new LPM mark could help to remove confusion. At the same time, the owner of a mark who does not wish to license its use but who does wish his mark to convey information about the product he is selling -- information other than source or origin -- would be able to avail himself of this option via a PM mark. To strengthen their marketing capabilities, many owners might prefer to convert their present TM mark into a PM mark so that it would signal this type of information.

The particular meaning of a PM mark would be established by the owner in the same way that the standards with respect to certification marks are now defined, and indeed in the same way that particulars are now set out and filed in agreements between trademark owners and their licensees. The standards and other particulars of such agreements would then become available for public inspection as is now the case for patents and the defined standard underlying certification marks, and the Registrar should conduct a public-interest examination as he is already required to do under present legislation.

These changes should not pose any significant administrative difficulties. The applicant requesting registration under the proposed new forms of marks would be free to submit his defined standard in whatever terms he chose. Where the standards take the form of technical specifications, the Trade Marks Office could, upon request and with the co-operation of the applicant, undertake to assist in translating these specifications into terms more meaningful to potential purchasers. We emphasize again that this system should be purely voluntary. We do not recommend inspection or investigation procedures related to the voluntarily supplied characteristics or qualities of products or services carrying a PM or LPM mark. At the same time, any misleading information should be subject to the same procedures or recourses as are available in the case of any form of misleading advertising.

In addition to these changes, there are a number of other actions which should be undertaken to clarify and sharpen the significance and meaning of all trademarks, and to enhance the usefulness of the system. These relate to the register, its organization and administration, and to questions about the use of marks, expungement, assignment, renewal, recourse and disparagement.

The Trademark Register

Central to the effective functioning of a trademark system is a well-ordered and readily accessible register of marks. With the continued growth of the use of trademarks, the Trade Marks Office, under an Assistant Commissioner, will have to expand to an extent necessary to facilitate the effective operation of the proposed new marks, registration, entry of new marks, and meeting the potential for consumer requests that will arise.

Administrative Co-ordination

Working relationships between administrators of the Trade Marks Act, the proposed Standards Council, and the administrators of other Acts such as the National Trade Mark and True Labelling Act should be expanded in the light of certain related responsibilities and interests of these groups. The locus of responsibility for representing the public interest in appealing the Registrar's decision that a particular mark should or should not be granted registration should be clearly established, and a better definition of this should be provided.

Possible inconsistencies between the trademark system and other legislation such as the Proprietary and Patent Medicine Act should be avoided. This latter Act, administered by the Food and Drug Directorate, sometimes sets somewhat narrower standards of acceptability with respect to drug names than does the Trade Marks Act. These narrower standards are designed both to prevent confusion between patent medicines by forbidding the use of similar-sounding names and to eliminate exaggerated claims, such as for the efficacy of curative powers, implied by certain names. A check for consistency at an early stage in the application procedure for a new trademark should be an obligation on the administrators of the trademark system.

International Treaties

Under the terms of the International Convention for the Protection of Industrial Property, at the level to which Canada has adhered, this country is obliged to grant similar rights to foreign applicants for trademark registration as are granted to residents, except that priority is granted to foreign applications received within six months after the date of filing of the first application abroad. There are a number of other international agreements affecting trademark registration to which Canada does not belong. These include the Madrid Agreement (composed mainly of European countries), the separate union concerning the International Registration of Trade Marks founded in The Hague, and the Agreement concerning Prevention of False Indications of Source, all of which were implemented in the early 1890's. We see little to be gained by Canadian participation in these unions at this time, but in case future developments offer the possibility that membership will at some stage be advantageous to Canada, we urge the Department of Consumer and Corporate Affairs to scrutinize these agreements, at five-year intervals, as well as any others which may emerge in the future, and to report on these reviews in its annual reports.

Classification of Wares

Canada appears to be one of the few countries which does not have a standard classification system for categorizing the wares to which a trademark applies. Instead, applicants for registered Canadian trademarks use their own terminology. As a result, potential buyers wishing to discover marks used in connection with any particular class of wares cannot readily do so. Nor can potential licensees or applicants for new marks now go to the trademark register and obtain a list of marks used in connection with any product available in Canada, such as men's shoes. They are likely to be scattered through a variety of classifications, both broadly and narrowly defined.

A separate union dealing with the International Classification of Goods and Services to which trademarks apply was founded by the Agreement of Nice in 1957 and came into force in 1961. Its aim is to establish a standard international classification system to speed up the searching task and reduce the possibility of error in

deciding whether or not to grant registration to a new trademark. However, neither Canada nor the United States is attending these meetings. We recommend that the government should consider whether it would be in Canada's best interests to participate in the development of an international classification of wares. Alternatively, Canada should at least actively explore the possibilities of using either existing Canadian standard product classifications, or the classification system now in use in the United States. Consideration should also be given to exploring appropriate links between the trademark register and the information on products and trademarks which is collected by other federal government departments.

Rejections of Registration

There are certain aspects of the present Act that are unclear and unsatisfactory with regard to the provisions for rejection of registrations. While it is now possible for the public to make objections to registrations, the scope for this needs to be clearer and more extensive than at present. These should apply to both foreign and domestic applicants and mark owners. The present time limit for objections should be reviewed for suitability. The Department of Consumer and Corporate Affairs should also give serious consideration to the developing of a single comprehensive register for all trademarks and trade names in Canada. And, in conjunction with building a greater positive public awareness of trademark registrations, we would like to see an equal program applied to expunged marks so that the public can be aware of these.

Penalties for Misuse

The major disciplinary procedure now available to control abuse of the trademark system is the power of expungement. The Registrar, at his descretion, may expunge a mark from the register with the agreement of the owner or, in the absence of such agreement, may also expunge or amend the register on the grounds that the mark is not in use. However, the Exchequer Court has the power to deal with appeals from his decisions and to consider other reasons for expunging all or part of the registration of a mark. Noticeably absent from the criteria set out in the Trade Marks Act to govern the decisions of the Court in determining whether or not to expunge a particular mark are issues involving restraint

of trade. Expungement on these grounds is however the subject of Section 30 of the Combines Investigation Act. In the light of the revisions to the Combines Act proposed in the *Interim Report on Competition Policy*, we recommend that expungement of marks from the register be retained as a remedy to be used in cases of violations of the ban on *per se* offences. We also recommend that the Exchequer Court be given the power to expunge a mark where the owner has failed to comply with an injunction issued by the Competitive Practices Tribunal following a hearing in which the use of the mark was found to shelter one or more practices judged to be undesirable.

Assignment Provisions

It is important to both buyer and seller that there be no confusion as to what a registered mark is intended to signify. The elimination of such confusion is the basis upon which the statutes and jurisprudence concerning trademarks have developed and has been the major thrust of our recommendations thus far. One further area of possible confusion remains to be considered -- the sale or assignment of a mark to another party by its owner. The present legal provision which requires conspicuous public notification when such assignment occurs needs a clear and more explicit place in the legislation so that it will be carried out more in practice. The ownership of many marks changes hands in the course of a year. There were, for example, 5,449 assignments of trademarks in the year ending March 1969. Our proposed new categories of marks should help to lessen confusion in this field. The new PM mark would of course be freely assignable. An appropriate means for notification of the fact that a TM mark is under new ownership could be developed by the Consumer Information Section of the Department of Consumer and Corporate Affairs.

Term and Renewal

The present term is 15 years, with provision for repeated renewals for a similar term provided only that the mark is in use. We recommend that this be continued, but that affidavits be submitted every five years to confirm that the marks are still in effective commercial use and to provide updating and renewal of information on characteristics of PM, LPM and CM marks. In addition, owners of the latter marks should be required to file information on changed product characteristics

whenever significant changes occur. The discretionary power now given to the Registrar under Section 44(3) of the Act, which allows him to excuse non-use in certain circumstances, should be retained. In addition, the Act should provide that when a mark is expunged or is allowed to expire voluntarily, it cannot be reissued for a period long enough to allow the public's familiarity with it to disperse.

Recourse

One recommendation put forward earlier in this chapter was that certain information be made available to the general public on request directly from the Trade Marks Office. We have also suggested that relevant facts such as the existence of registered users of particular marks and that defined standards of goods or services covered by marks be disclosed. In situations in which the wares of the licensee are found by a buyer to be in default of these standards in some material respect, the buyer should have recourse to the owner of the mark and/or to his licensee, coupling them both in any action for damages. Similarly, the owner of a mark should have recourse to any licensed user who fails to conform to the standards he has imposed.

Disparagement

Finally, if the system is to function at all well, there must be a certain amount of activity directed towards the making of product comparisons for the benefit of buyers. Sellers themselves may be induced to provide more of this type of information if Section 22 of the Act were to be changed. This Section forbids the use, in association with wares or services, of a trademark owned by another person in such a way as to depreciate the value of the goodwill attaching to the mark. This broad prohibition needs to be narrowed in order to permit accurate statements by competitors as to the comparative advantages of their products. In conjunction with this, stronger penalties for false claims should be imposed. Appropriate provisions should be made to apply to governments and to buyers' testing organizations, since it is important that they understand themselves to be free from the threat of prosecution under this Section when they make correct statements about products. Comparative information across a whole product classification should also be developed, from time to time, by the Department of Consumer and

Corporate Affairs from the information filed in the Trade Marks Office. Since descriptive terms as to the standards imposed on licensees are supplied by the owner himself, such product tables as might be produced should not meet the usual objections that are made with respect to government-sponsored product test results. The Department might also be expected to make public other forms of useful information, such as new marks, new firms, new products, and any other relevant factors capable of assisting purchasing agencies, including households, in their decision-making.

CHAPTER 9

CONCLUSION

In this last of the three main Reports containing the Economic Council's policy recommendations under the government Reference of July 22, 1966, it is timely and appropriate to look back and review briefly some principal features of the general approach that has been adopted -- an approach that has substantially affected the final outcome in terms of analysis and recommendations.

The Economic Council was asked to report on three areas of federal government policy: consumer affairs, competition policy, and policy concerning intellectual and industrial property. The terms of reference clearly implied that the Council should try to bring all these hitherto rather specialized and under-researched policies more into the mainstream of economic policy-making in Canada and also to relate them better to each other.

This has indeed been attempted in a variety of ways. For example, various opportunities have been used, in the course of the three Reports, to make illuminating references back to matters examined in an earlier Report, or to anticipate problems to be dealt with in a later Report. But an even larger part of the task of relating and tying together has been done through the employment of the three underlying themes mentioned in the opening chapter of this Report:

1. The importance of the general public and consumer interest in these as in other areas of economic policy.

2. The importance of using efficiently, in a dynamic as well as a static sense, the real resources available to the Canadian economy.

3. The economic importance of knowledge and information.

During the period of our work, the first of these themes -- the consumer interest -- has for various reasons come to be expressed more forcefully in Canada and other countries. As with all awakenings, certain

expressions of it have at times tended to be exaggerated. Some businessmen have even wondered aloud whether the rise of the consumer movement means that the views of those who have worked for a long time in a line of economic activity and learned its intricacies will no longer be properly heard and that significant information available from producer and distributor sources will not be taken adequately into account in the formulation of government policy.

It should not, of course, mean anything of the kind; nor does it, in large part. The real significance of the consumer movement is twofold. First, in a market economy whose main ultimate purpose is the improvement of general welfare, consumers have a supremely important role to play. But their performance of this role is hampered by their very vastness and amorphousness as a group and the consequent difficulties of getting concerted attention focused effectively on issues which, when the public is made properly aware of them, are seen to be of widespread interest and concern. Another major difficulty is consumers' lack of solid and relevant information (as opposed to "noise") about commodities and markets in a technologically and economically complex society. Three fundamental purposes of the consumer movement, therefore, have been, (1) to give consumers a greater measure of the self-awareness, confidence and cohesion that many other interest groups in the community have long possessed; (2) to make consumers a great deal better informed; and (3) to protect consumers more directly against various hazards which are of such a character that information alone cannot do the job.

The second significance of the consumer movement and the concept of the consumer interest is as a touchstone and guide to economic policy -- particularly in situations where the decisions to be made are difficult enough inherently and are rendered even more so by clashes of interest between various groups and by angry controversy about such matters as "free enterprise versus socialism", "monopoly", "fair competition" and "property rights". As it happens, the areas of economic policy covered by our three Reports are especially thickly studded with situations of this kind, and the concept of the general public and consumer interest has proved invaluable in steering what we hope will be accepted as a reasonably steady and consistent course through them. When an economic policy issue becomes particularly angry, complex and impenetrable,

it is usually helpful to stop and ask the simple but fundamental question, "What is the economic system really in aid of?" Adam Smith's answer, that "Consumption is the sole end and purpose of all production..." still has great power to resolve contentious policy questions satisfactorily. Its use does *not* mean that "the producer always loses". Rather, it means that in the long run the *general body of producers* will *gain*, inasmuch as more of the right things are likely to be produced in the right places at the right times.

There is a danger in what might be called "false confrontations" between consumer and producer interests. Such confrontations can sometimes obscure the real difficulties in a problem and persuade governments that the way to solve the problem is merely to find some middle-of-the-road compromise between the positions taken by the most vociferous spokesmen on either side. The adversary technique for resolving issues has its rightfully honoured place in Canadian society, notably in parliamentary debate, and in the court room. But there are some problems that can be put into much better shape for parliamentary and judicial consideration if they are not treated in the first instance as simple confrontations, between, for example, authors and the reading public in the case of copyright. The public has a very definite interest in getting more good books written; it is not opposed to the interests of authors in that sense. The real issue is more complicated -- the real task to discern and make effective the deeper, long-run interest of the public in seeing that the worthwhile expressions of authors are first made and committed to some suitable medium, and then conveyed to as many potentially interested people as possible.

The second of the unifying themes of these Reports has been the efficient allocation of the resources of the Canadian economy. This, too, is an essential touchstone for policy-making, though not of course always an easy one to apply, especially in the face of such questions as whether a corporate merger policy or a change in the patent system will shift resources in certain directions -- for example, towards more innovative activity -- that are likely to increase the general welfare of Canadians in the longer run. There are international aspects of these matters that can prove particularly perplexing in Canada. Nevertheless, like the consumer interest, the efficiency concept has proved to have considerable "cutting-through"

power. It was especially helpful in arriving at proposals for a more consistent competition policy and in examining critically much of the traditional lore that has characterized both sides of the long-standing controversies surrounding patent and copyright systems.

The final unifying theme has been the growing importance of knowledge and information in a society such as Canada's. This theme has been sounded particularly loudly in the present document, notably in the treatment of copyright and computerized information systems, but it also appeared in a major way in the first Report which focused special attention on the consumer's need for better information, and outlined some policy proposals designed to provide it. In the Canada of the future, an increasing proportion of economic issues are going to be information issues, and the economics of information is an area that urgently needs more research and analysis.

We commend these three themes to policy-makers and others. They have been very useful to us. They should be able to do good work elsewhere.

One final comment is that a great deal of the subject matter covered by this Reference had the unmistakable earmarks, when we first encountered it, of material that had been lying about for much too long undisturbed, or at any rate very little disturbed. The world had changed, and some very significant areas of Canadian economic policy had not changed enough with it. This should not be allowed to happen again. The world is now changing, if anything, even faster, and future reviews of these policies should be more frequent and in some sectors virtually continuous. In addition, we suggest that a more formal and comprehensive public review of these policies should be undertaken at least once a decade. This review should cover the goals of the policies, the means employed for attaining them, and careful evaluation of the effectiveness of these policies in serving the evolving needs of Canadians.

APPENDIX A

SUPPLEMENTARY NOTE ON PROPERTY RIGHTS AND INTELLECTUAL AND INDUSTRIAL PROPERTY

A "mixed", quasi-capitalist economy such as Canada's, whose operation continues to rely heavily upon a decentralized market-price system, is characterized by the widespread holding of rights in tangible and intangible property of various kinds. The State itself directly holds some of these rights (for example, its rights in Crown lands and government buildings), but the majority are held by private individuals and groups, with the State providing a structure of law and administration one of whose functions is to define and enforce these private rights and so make them economically and otherwise significant.

In a completely lawless society, private property rights would be significant only to the extent that the "owners" could personally enforce their claims to them. An "owner" might, for example, be able to hold on to a house and enjoy its shelter and protection by fortifying it, building a moat around it, and hiring armed retainers. Canadians, however, live under a rule of law, which effectively means that property rights are to a great extent what the law makes them. The law may do much to strengthen a private person's hold on a piece of property which he claims, but rarely, if ever, does it grant him the absolutely unrestricted use of it. This is why it is important, in an economic context as well as other contexts, to think in terms of "property rights" rather than simply "property" and to specify what these rights do and do not entail:

> "In everyday conversation we usually speak of 'property' rather than 'property rights', but the contraction is misleading if it tends to make us think of property as *things* rather than as *rights*, or of ownership as outright rather than circumscribed. The concepts of property and ownership are created by, defined by, and therefore limited by, a society's system of law. When you own a car, you own a set of legally defined rights to use the vehicle in certain ways and not in others; you may not use it as

> a personal weapon, for example, nor may you leave it unattended beside a fire hydrant. Among the most important rights you do have are the right to prevent others from using the vehicle, except with your permission and on your terms, and the right to divest yourself of your ownership rights in the vehicle by selling them to someone else. We may say, then, that ownership always consists of (1) a set of rights to use property in certain ways (and a set of negative rights or prohibitions, that prevent its use in other ways); (2) a right to prevent others from exercising those rights, or to set the terms on which others may exercise them; and (3) a right to sell your property rights."[1]

The extent of private rights in property can have great political and sociological significance, notably at times when, as in seventeenth-century England and eighteenth-century France, the extent and distribution of property rights becomes one of the central issues in a major political and social revolution. Even at such junctures, however, the underlying struggle is more likely than not to involve strong elements of outright economic interest as well, and at most times people appear to value the rights in property which the law grants them primarily for their ability to generate a stream of economic satisfaction of "income", using that word in its broadest sense. This "income" may take various forms. It may be the unmeasured satisfaction which a family obtains from its property right in a television set; it may be the imputed income which that same family derives from its equity in the family home; or it may be the money income which the head of the household obtains from his property right in a truck or a retail store. As a general rule, the broader and less circumscribed are the legal rights in a property, the greater will be the capacity of that property to return

---

[1]J. H. Dales, *Pollution, Property and Prices*, Toronto, Toronto University Press, 1969, pp. 58-59.

a stream of "income" to the person holding the rights,[1] and the greater, consequently, will be the selling price of those rights.

The income-generating capacity and market value of any piece of property rarely stand still for very long, and may indeed fluctuate widely over time. Among the numerous factors responsible for such fluctuations are various actions by the State. Some of these actions may impinge fairly directly upon property values, as when a municipality rezones an area to permit the construction of high-rise apartment buildings, to the advantage of those whose properties are snapped up by developers, but to the disadvantage of those whose properties become overshadowed. In other cases, the impact may be less direct, but not necessarily less significant on that account. If, for example, a central government pursues a sternly anti-inflationary policy, using "classical" weapons of fiscal and monetary restraint, and if it largely succeeds in its purposes but only at the cost of heavy unemployment and slow economic growth, some properties such as used construction machinery may, for the time being at least, suffer declines in their earning potential and resale value, while the stage may be set for other assets (such as bonds) to rise in value.

The State, then, in its pursuit of various objectives of public policy, is constantly doing things that affect the economic value of private property rights, sometimes enlarging that value and sometimes contracting it. When the State takes the step of instituting laws of intellectual and industrial property, it enlarges the economic value to certain persons of some kinds of ideas and expressions of ideas and the goodwill of trademark-using enterprises. It does so by making these things less easily appropriable by all and sundry, and more capable, therefore, of returning appreciable streams of income to their first holders and contractual

---

[1]For the stream of income to flow, there may of course have to be substantial applications of other productive inputs. Even a very fertile piece of farmland, for instance, will not yield income until significant amounts of labour and machinery are used to make it bear a crop.

assignees. Its main purpose, as mentioned earlier, is to shift more of society's real resources into certain informational and innovative activities.

As with other property rights, the economic value of patents, copyrights, trademarks and registered industrial designs can be importantly affected by a great variety of factors, including other government policies. If a government places substantial orders for highly sophisticated defence hardware, the value of some patents may be enhanced. If it raises the minimum school-leaving age or increases the number of university places available, some book copyrights are likely to appreciate. If, on the other hand, it orders the withdrawal from the market of a well-known product on health and safety grounds, some manufacturer's trademark may become considerably less valuable.

In the light of all this, the simple declaration that an inventor has a property right in his invention and an author a property right in his book is not really the fundamental and broadly illuminating proposition that it is sometimes made out to be. The legal property rights involved are more specifically limited than most, and they do not form part of any all-encompassing universe of property rights in every sort of creative emanation of the human brain inasmuch as some of the most important of all such emanations enjoy no direct legal protection whatever. The key issue is rather one of whether, in the light of all the economic and other circumstances, the law is providing incentives for inventors, authors and others that efficiently promote the attainment of the innovational and information goals of society:

> "Few writings on the subject of intellectual property expose the circular and issue-begging use constantly made of the word 'property'. 'Property', of course, means little more than legal protection for a claim made by a person. It usually refers to the guarantee of an entitlement to exclude. The reasons for finding such an entitlement necessitate, in intellectual property law as in all other areas of law, an enquiry as to whether the conditions of protection are met. But whatever the precise definition of 'property', the point here is that it is not *reason* to say that something

> deserves protection because it is 'property'; 'property' is a shorthand description for a *conclusion* of law. It is meaningless, for example, to claim protection on the ground that one has 'natural property rights' in something. Land and moveable goods are commonly called 'property' because they are typical subjects over which exclusive rights are recognized by law, but whenever the existence or extent of a right to exclude is challenged no assistance is gained by stating that one's interest is 'property'. Particularly must all fog be lifted for the next few years when some copyright law reform in Canada may reasonably be expected. Wringing hands or raising voices over 'expropriation of property' or 'piracy' or quoting the eighth commandment, will not contribute to the settlement of issues beyond providing an inarticulate point of view, without reasons, on policy questions concerning both the fact and form of incentive to be provided to creators."[1]

As is argued in the above quotation, it does not essentially alter matters to characterize rights in intellectual and industrial property as "natural" or "fundamental" rights. This is not to deny the historical importance and the persisting political importance of "natural-rights" doctrines. They have played and continue to play a highly significant role in the evolution of human societies. People who firmly believe that they possess not just an interest in some objective, but a basic "natural right" in it, are likely to be more vigorous and indefatigable in the pursuit of that objective.[2] But however passionately may be pressed

---

[1]Bruce C. McDonald, Review of second edition of H. G. Fox, "The Canadian Law of Copyright and Industrial Designs", *Canadian Bar Review*, vol. XLVII, 1969, p. 145.

[2]"No taxation without representation", "equality before the law", and "no discrimination on account of race, sex, creed or colour" are examples of objectives which many people would hold to be "natural rights".

the claim to a set of rights -- whatever language may be used to indicate that the claims in question are believed to be of a superior order -- the granting of legal protection to property rights within a democratic society must usually be done by a legislature, the members of which, if they are wise, will be careful to ask what purposes are expected to be served by the extension of legal protection and whether on balance these purposes are likely to be in the best interests of society.

It is often pointed out that in the United States, the rights of authors and inventors are enshrined in the Constitution. That document does indeed deal with such rights, but the context and language of the relevant passage are worth noting. The passage occurs not in the Bill of Rights, but in the enumeration of the powers of the Congress, which are stated to include, among other things, the power "... to promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries...." In other words, a limited right is granted in order to promote a stated social end.

APPENDIX B

SOME INTERNATIONAL COMPARISONS OF BOOK PRICES

Consistent with our concern for the international price discrimination that tends to exist to the disadvantage of the Canadian book buyers, it was decided to make a brief review of the prices for books in Canada and England. These two countries were chosen because there is no tariff between these two markets,[1] and if trade were as free and uninhibited as the law intended, then one could expect to find a price pattern that showed approximately equal prices, after adjustments for shipping and handling charges. However, the Canadian copyright law restricts importation of books in quantity. Specifically, it restricts importation to two copies for one's own use, or one copy for any use. Even this limited importation is restricted to a country adhering to the Berne Convention. This barrier can, and in fact does, allow firms to practise price discrimination, even though a free-trade tariff policy is in effect. Publishers and distributors who control importation through copyright law may charge a different price for material sold in Canada than for that sold elsewhere, and evidence indicates that the Canadian price is generally higher. In recent years many Canadians, particularly those in the academic community, have noticed such a price difference and have begun to purchase around the barrier. For example, in the catalogue for one famous bookstore in England, the advertising notice states:

> "Books from this catalogue will be supplied to customers overseas at the English net published price (as given here), with a surcharge of about 7 per cent for postage and insurance. The resulting prices should be markedly cheaper than any current locally."

To find whether such a consistent difference does in fact exist, prices of a sample of books from several British and Canadian sources were compared.

---

[1]While there are a variety of exemptions (for such items as educational books, religious books, and others) there is a Canadian tariff of 10 per cent on English language books imported to Canada. The British preferential tariff rates allow duty-free entry of their books.

In these comparisons, the suggested retail purchase prices of books in Canada were considered in relation to the total price of the same books purchased in England and imported to Canada under the provisions of the Copyright Act's Section 28. The Canadian prices were taken from retail price lists issued by several individual publishers, which include no delivery charges;[1] English prices were taken from the catalogues of several large British retail booksellers. The latter were then converted to Canadian dollars at the official exchange rate and adjusted to include a 7 per cent postage and handling charge.[2] In all cases, the comparisons were made on identical books from catalogues covering equivalent points in time. In total, 125 title comparisons were made, divided among three booksellers and six publishers in the following manner:

Table B-1

NUMBER OF COMPARISONS IN SAMPLE

	British Retail Bookseller		
Canadian Publisher	Blackwell's Book Shop	Foyle's Book Shop	Economist's Book Shop
		(Per cent)	
Everyman's	56		
Dent Pub. Co.	12	4	
Clarke-Irwin	36	4	
Musson Book Co.	1		
Macmillan		8	
McGraw-Hill			4

[1]The suggested list prices tend to be followed by most bookstores. Typical author's royalty contracts do not allow for royalties if the actual price is considered one that is lower and intended to dispose of "remainders", i.e. items unsaleable at the suggested list price.

[2]The 7 per cent surcharge is representative of that required by British booksellers for postage and insurance.

In all cases except two, the total price of the book imported from England was found to be significantly lower than the Canadian suggested retail price. The two exceptions were Canadian psychology textbooks published by McGraw-Hill, and the comparisons in this case were with the Economist's Book Shop. For all books in the sample, the average delivered price for a book from a British source was about 30 per cent below the Canadian retail price.[1] The average price differentials for separate publishers and booksellers are given in Table B-2.

Table B-2

PERCENTAGE NET PRICE DIFFERENTIALS*

	British Retail Bookseller		
Canadian Publisher	Blackwell's Book Shop	Foyle's Book Shop	Economist's Book Shop
		(Per cent)	
Everyman's	30.7		
Dent Pub. Co.	32.8	31.4	
Clarke-Irwin	31.9	27.4	
Musson Book Co.	38.9		
Macmillan		20.9	
McGraw-Hill			13.7
Average Overall Price Differential...30 per cent			

*These percentage calculations are based on the Canadian suggested retail price less the British price including shipping costs divided by the former.

[1]There is, however, a delivery delay arising from the shipment of books (shipping is by sea and typically takes about six weeks). But delivery delays may also occur for out-of-stock books from Canadian sources, and in any event are not always of major importance to purchasers.

APPENDIX C

SOME SAMPLE SURVEYS ON THE USE OF PHOTOCOPYING MACHINES

In view of the expanding use of photocopying machines and the potential copyright threat they pose, it is helpful to examine the evidence on the use of such machines as related to copyrighted material. While the available evidence is scarce, there are some data that can be indicative of the effect of these machines. Several results of a recent survey conducted at one major Canadian university and an earlier study done at American libraries are summarized below.[1] Based on these results, it does not appear that serious damage has as yet been done, in terms of reduced publications or sales, to Canadian publishers and authors, nor to commercial publishers and authors in general.

In the Canadian sample, only 11 per cent of the pages copied were from Canadian publications.[2] Among the six individual publishers copied most frequently, only one particular Canadian publisher, an academic press, stood out. Also, no more than 32 per cent of the total sample

---

[1] R. H. Blackburn, "Photocopying in a University Library", *Scholarly Publishing*, vol. 2, no. 1, October 1970, pp. 49-58, and R. H. Blackburn, "Canadian Content in a Sample of Photocopying", *Canadian Library Journal*, vol. 27, no. 5, September-October 1970, pp. 332-340, which is a more extensive report of the same study. Also, G. B. Sophar and L. B. Heilprin, *The Determination of Legal Facts and Economic Guideposts with Respect to the Dissemination of Scientific and Educational Information as It Is Affected by Copyright - A Status Report*, Washington, D.C.: Bureau of Research, Office of Education, U.S. Department of Health, Education and Welfare, 1967, p. iii. This Study involved a very detailed survey of six libraries and a less-detailed one of 60 others.

[2] Studies in progress at other Canadian universities tend to indicate a similar, or even lower, level of Canadian content subject to photocopying.

of titles were, or had been, available from a Canadian source. An examination of the smaller group of items copied, the Canadian monographs, showed that only 18 per cent of these were available on the current listings of Canadian publishers at the time of the survey. This latter finding tends to support the opinion that the lack of ready availability of the work is an important motivation in photocopying and that the copying done is not now of critical importance to Canadian publishers.

A second set of points made in the two studies was that the greatest portion of copied work was from academic serial publications. In the Canadian study this group was 75 per cent of the total; in the American study copying of scholarly serials amounted to nearly 90 per cent of the total, as measured by titles. These scholarly journals are typically nonprofit publications[1] and they rarely pay any royalties to contributors. In fact it is becoming an accepted practice for certain of these journals to request from authors a "page-charge" prior to publishing. The author's desire here is of course for maximum dissemination of information possibly leading to greater professional prestige and advanced positions. Since it was also found, in both the American and Canadian studies, that the majority of copied works was from works published within the last ten years, it would appear that the photocopier's main use is for widespread dissemination of modern work in the nonprofit fields of research and education.

A third interesting point noted in both the studies was that multiple copying of a work was very rare. In the Canadian survey only 1 per cent of the works were copied more than once, while the corresponding American figure was 3 per cent. In the Canadian sample it was also found that the average number of pages copied on each occasion was only 12. These facts suggest that the photocopier is not being used to any significant extent for the mass production of textbooks for the student market.

---

[1]Most learned journals are subsidized by governments or professional associations. See M. B. Nimmer, "New Technology and the Law of Copyright: Reprography and Computers", *U.C.L.A. Law Review*, vol. 15, no. 3, p. 945.

The foregoing is not a complete picture but only refers to details in two recent studies. However, there have been at least three other studies done on the practices of library photocopying, and their effects. In evaluating these studies, one author has concluded, "Publishers' claims that photocopying has led to a loss of sales are hardly supported by statistics of sales during the period in which photocopying has become increasingly available, convenient, and inexpensive".[1] Thus it would seem fair to conclude from the available evidence that, at present, the photocopying machine is not a significant threat to Canadian publishers, especially where they have material available for purchase quickly and conveniently.

---

[1]Verner W. Clapp, "Copyright: A Librarian's View", D. M. Knight and E. S. Nourse (eds.), *Libraries at Large, Tradition, Innovation and the National Interest*, New York, R. R. Bowker Co., 1969, p. 260.

APPENDIX D

REVENUES AND EXPENDITURES OF THE PATENT, COPYRIGHT, INDUSTRIAL DESIGN AND TRADE MARKS BRANCHES

Patent and Copyright Office

With respect to patents, copyrights, and industrial designs:[1]

	Fiscal Year Ended 31 March 1970
Fees from all sources	$5,239,120
Total Expenditures	$4,633,597

Trade Marks Office

	Fiscal Year Ended 31 March 1970
Fees from all sources	$ 869,319
Total Expenditures	$ 510,000

[1]These three branches are all operated under the office of the Commissioner of Patents and their accounting is therefore amalgamated. In fiscal year 1968-69 the registration fees for the Patent Branch were $1,242,865; for the Copyright Branch, $24,909; and for the Industrial Design Branch, $6,351. The expenditures in 1968-69 were broken down by the following approximate proportions: Patent Branch, 97 per cent, and the Copyright and Industrial Design Branch, 3 per cent. The relatively high proportion for the Patent Branch is due primarily to the large staff of examiners employed therein.

APPENDIX E

LIST OF WRITTEN BRIEFS SUBMITTED TO THE ECONOMIC COUNCIL OF CANADA ON THE SUBJECT MATTER OF THE REFERENCE

Person or Group Presenting Brief	Subject Matter
1. Arc Sound Ltd.; Bay Music Co. Ltd.; Canint Music Corp. Ltd.	Copyright
2. Association of Canadian Industrial Designers	Industrial Design
3. Bakery Council of Canada	Combines
4. BMI Canada Ltd.	Copyright
5. George M. Brownell	Patents
6. The Canada Council	Copyright
7. Canadian Consumers' Protest Association	Consumer Affairs
8. Canadian Association of Broadcasters	Copyright
9. Canadian Association of Provincial Liquor Commissioners	Combines
10. Canadian Association of University Teachers and The Ontario Universities Television Council	Copyright
11. Canadian Booksellers Association	Copyright
12. Canadian Chamber of Commerce	Combines
13. Canadian Copyright Institute	Copyright
14. Canadian Electrical Manufacturers Association	Consumer Affairs, Combines, and I&IP*

Person or Group Presenting Brief	Subject Matter
15. Canadian Export Association	Patents
16. Canadian Football League	Copyright
17. Canadian Gas Association	Consumer Affairs
18. Canadian Manufacturers Association	Combines, I&IP
19. Canadian Music Publishers Association	Copyright
20. Canadian Pulp and Paper Association	Combines
21. Canadian Record Manufacturers Association	Copyright
22. Chemical Institute of Canada	Patents
23. Ciba Company; Geigy (Canada) Ltd.; Hoffman-Laroche Ltd.; Sandoz (Canada) Ltd.	Patents
24. CAPAC (Composers, Authors and Publishers Association of Canada Ltd.)	Copyright
25. Connaught Medical Research Labs	Patents
26. Consumers Association of Canada	Consumer Affairs, Combines
27. Mr. Harper Crisp	Combines
28. Charles E. Frosst & Co.	Patents
29. Greater Ottawa Truckers Association	Combines
30. Grocery Products Manufacturers of Canada	Consumer Affairs, Combines
31. Imperial Oil Ltd.	Combines

Person or Group Presenting Brief	Subject Matter
32. Kirkland Lake Inflation Fighters	Consumer Affairs
33. Laurentian Music	Copyright
34. Meat Packers Council of Canada	Consumer Affairs, Combines
35. Mitches and Mitches	Copyright
36. Maniacco's Auto Service	Combines
37. National Automotive Trades Association	Combines
38. Northern Electric Company Ltd.	Combines, I&IP
39. Ottawa Consumers' Protest Association	Consumer Affairs
40. Patent and Trade Mark Institute of Canada	I&IP
41. Pharmaceutical Manufacturers Association of Canada	Patents
42. Quebec Women's League	Consumer Affairs
43. Retail Council of Canada	Consumer Affairs, Combines
44. Summerlea Music	Copyright
45. Gordon V. Thompson Ltd.; Chappel & Co. Ltd.; Leeds Music (Canada) Ltd.; Southern Music Publishing Co. (Canada) Ltd.; Boosey & Hawkes (Canada) Ltd.	Copyright
46. F. H. Walker	Patents

* I&IP is a short form for the words Intellectual and Industrial Property, the subject of the third part of the Reference.