facilities rather than the construction of new ones which might create overcapacity.

Official encouragement of arrangements of this sort is especially likely where necessary raw materials or labor or transportation facilities are in short supply, foreign exchange may be limited or the government may wish to prevent a single company from becoming too important to the national economy.

In general, restrictions such as these applying to commerce in the host country and imposed by the host government will create no antitrust hazards for the American company. In particular, price or capacity restrictions in the foreign market imposed at the insistence of the foreign government and not involving exports to the United States should not violate U. S. antitrust laws.

PROTECTING TECHNOLOGY SOFTWARE AND DATA INFORMATION

by
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Although this talk this morning will consider primarily the legal means by which software may be protected, I will consider data information which need not be part of the software stream.

As an introduction it would be convenient to define some terms. The term "software" is generally not synonymous with the term "programme". Software is a somewhat broader concept than "programme". Software includes not only the programme which causes a digital computer (electronic data processor) to function and operate in an assigned manner but in addition the associated supporting documentation such as explanations, flow charts, algorithms, tables and check lists together with operational manuals which instruct the user how to implement the programme on a data processor.

These definitions of "software" and "programme" will be maintained throughout this discussion. Further, we have developed herein and will maintain the convention that "programme" (English spelling) will mean a programme for causing or instructing a data processor to function and operate in an assigned manner. The work "program" (American spelling) will not necessarily have this restricted meaning. Data Information may include software but also includes any other type of data information representable in bits, i.e., input and output data, etc.

You will note that care has been taken to set forth terms and definitions for future reference. It will be seen that to a substantial degree the problems which have arisen in relation to patenting programmes are, to the discerning eye, problems as to form rather than substance. However, if we are not careful we could end up with a system of protecting programmes much narrower than those our patent laws envisage.

The programme is thus an inherently consistent set of serially ordered commands. It is disposed onto machine readable media, punch cards, tape, paper tape, magnetic tape, disc, core (i.e., disposed into machine readable form). It may also be transmitted by electrical impulses over wire or through space. As such the programme is itself something complete and apart from that by which it is manifested or with which it operates.

Thus the programme is not the device by which the programme is manifested (programming device) nor is it the data processor which executes the commands of the programme. The programme in fact is not even the programmable process which will transpire within the data-processor. In our terminology the programme is analogous to the "source deck programme" while the programmable process is analogous to the "object deck programme".

Now to those of you familiar with programming in various languages you will appreciate that the programme may encompass several languages, whether high level or low level is immaterial. The programme is not even an algorithm nor algorithms but rather the manifestation of these algorithms in much the same way that sentences are manifestations of words disposed in a logically consistent lineal array across a page.

PROPERTY RIGHTS

The patent right is the property right in relation to computer programmes which holds the most popular interest today. There are other property rights too, those of copyright, industrial design (which in the United States of America is called "design patent") and trade mark. These property rights (patent, trade mark, copyright and industrial design) are generically called Intellectual and Industrial Property.

Intellectual and Industrial Property, particularly the patent, stems from the English Statute of Monopolies of 1623. That Statute had its origin from a 1474 Statute of the Republic of Venice, which after the fall of the Byzantine Empire (29 May 1453) had assumed the dominant role as the center of world trade.

The patent right as it evolved in England was designed to encourage, promote and protect industrial and commercial technology. In those days simple machines were the manifestations of technological change, the telescope, the steam engine, the letterpress and others. Business systems were not considered technical advances at that time because there were none; neither was there mathematical hypothesis or theoretical scientific innovation. As a result the latter were exempted from the evolving patent laws. Today in Canada invention is defined[1] as:

> *"Invention" means 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.*

This definition has essentially been derived from the United States definition of invention[2]. However, our courts, being traditionally dependent on English law for their interpretations, have in my opinion distorted our definition of invention to demand that it implies, inherently, that a vendable product must result from an invention. As a result a "process" in order to be patentable in Canada must create a vendable product.[3] Under such torture the word "art" in the definition of invention becomes meaningless. It should be noted that the English Patent Act defines invention somewhat differently from the Canadian Act.[4]

It is submitted that the definition of invention in Canada has erroneously been restricted and that the word "art" should impart some meaning to invention. If this were done, it would appear appropriate that "art" be defined, as it is in the United States, as being restricted and applicable to the "useful arts" or "technological arts", in distinction from the fine arts such as painting, music, the theatre.[5] If this position were taken a programme would be an art within the definition in our *Patent Act* and thus a patentable invention. But this change in the law may be somewhat long in coming.

WHAT IS THE PRESENT POSITION

A. *In the United States*

On 17 November, 1966 the President received a long awaited report, namely, Report of The President's Commission on the Patent System. This recommended that — *A series of instructions which control or condition the operation of a data processing machine, generally referred to as a "programme", shall not be considered patentable regardless of whether the programme is claimed as:*

(a) an article;

(b) a process;

described in terms of the operations performed (c) one or more machine configurations established by a programme.

So the debate began.

At that time, it should be remembered, computer hardware companies sold or rented machines and their associated software (programmes) in one selling or rental amount. It was not until the announcement, by IBM, in mid 1969 that "unbundelling" began to take place. Further, it was after the President's report that IBM in response to a request of the U.S. Patent Office[6] submitted a proposal for protecting programmes.[7] The IBM proposals were for a registration system of programmes, more of which will be said later.

Nevertheless, throughout the period, aggressive inventors and their attorneys filed patent applications on programmes in the hope that the patent office would allow them to issue into patents;[8] but the U.S. Patent Office stood fast in refusing to allow patents to issue on programmes, on the supposition that the series of commands were purely mental steps. Three successive appeals[9] of rulings of the Patent Office to the courts between 14 August, 1969 and 8 October, 1970, reversed the Patent Office's stand and allowed patents on programmes.

IN THE UNITED KINGDOM

In 1969 the Patent Office issued guidelines for Patent applications for computer programmes. These guidelines were instituted after the courts[10] approved patents for programmes. However, because of the peculiar definition of invention[11] in England, the guidelines require that the patent claims be framed in a certain way.[12]

IN CANADA

The position has been somewhat less than hoped for by advocates of programme patents. This was probably due, not, in our opinion, to the reluctance of the Patent Office to act, but on a somewhat common phenomenon that we Canadians exhibit of "let's see what the Americans are doing".

As a result extremely few, if any, programme patents have been filed in Canada and the bulk of them, I would suspect, are corresponding applications which have been filed first in the United States. Thus, when the discussion began in Canada on programme patents about 1967, The President's Report (supra) was a public document and, seeing that the trend to non-patentability of programmes was advocated, this approach appears to have been followed in Canada with not much thought until recently.

Although no cases have reached the Canadian courts the Commissioner of Patents in a guideline[13] has deemed a programme not patentable subject matter.

Since then, the famous Economic Council of Canada *Report on Intellectual and Industrial Property*[14] has rendered a somewhat cautious recommendation. It does not categorically deny patents to programmes but rather suggests *that patent protection of computer programmes would not be appropriate in Canada at the present time . . . we would not favour Canada's taking any sort of world lead in extending patent or copyright protection to computer programmes 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.*

The Council then goes on to recommend a system of publication, periodically updated, of catalogues advertising the applications of the programmes and their owners, with the hope that users would purchase them from each other. The council report interestingly enough does not mention anything of the IBM proposals.[15]

COPYRIGHT

Now to place the foregoing in perspective, it must be explained that copyright is a negative right, that is, it is a right which prevents another from copying. It gives, unlike a patent, no protection as to how the work is performed or copied, but only whether it in fact is copied (or performed) in some recognizable part. If so, there is infringement of copyright.

However, severe problems lay in the definitions under our Copyright Act[16] particularly in regard to the scope of the definition of "work" and "literary work".[17] Hence, it may well be that data within core or on magnetic tape is not subject to copyright, while data on Hollerith cards is subject to copyright. It would appear that reliance on our copyright laws may be not only ineffective but illusory.[18]

TRADE MARKS

Since trade marks offer protection only to the use of words, marks or symbols used in association with the sale, lease or hiring of goods or services, they are of no practical use in protecting software.[19]

Summarizing, we see that the law of Industrial and Intellectual Property is, in Canada at least, somewhat obscure and indefinite at this stage. Consequently it would be advantageous to consider whether other avenues of protection are available, but it should not be forgotten that the patent right definitely exists, particularly in countries such as the United States and the United Kingdom. I would anticipate that we in Canada will eventually imitate these countries.

OTHER AVENUES OF PROTECTION

Other avenues of protection include those areas of law which are most familiar to all of us, namely, contract. The law of contract is as old as the common law itself.[20]

Suffice it to say that the areas of contract which are most applicable to protecting technology are:

(a) employee / employer relations;
(b) confidential disclosure and trade secrets;
(c) contract law applicable between two independent contractors (i.e., service bureau and its customers or computer hardware company and its lessees of hard and software), by written contracts of employment which specify the terms and conditions of employment of the materials and methods involved. Key people in the organization should be required to execute such contracts. Further, it would be advantageous to have all employees execute an undertaking to maintain secrecy (appendix "A") on employment and an acknowledgement of the other party's ownership of the process, etc. on termination of employment (appendix "B").

TRADE SECRETS

The common law of this province is clear that if an employer wishes to keep secret any information or technical know how which he has in his possession and which is not generally available to the public, then he must do overt acts which impress the mind of the persons dealing with the information that it is the property of the employer and thus a trade secret.[21] In the absence of such overt acts the information is deemed to be not confidential and not a trade secret[22] and its disclosure to others cannot be restrained by injunction, nor will it be compensated for in damages.[23]

OTHER RIGHTS

Other remedies also exist by which rights can be protected.

As we have seen, trade secrets, a species of contract, is one. The nature of the relationship between parties, whether between hardware manufacturer and user, or between service bureau and customer, or between E.D.P. user and manufacturer, must be carefully considered.

The general rule is that if there is a breach of a contract by one party this entitles the other to sue for damages and in certain instances specific performance. The amount of damages obtainable upon a breach of contract is calculated according to the loss suffered. Injunction (an order restraining one from pursuing a course of conduct contrary to a contractual relationship or a recognized legal right) may be given but only when damages are an inadequate remedy.

What in fact constitutes a breach of contract is sometimes difficult to determine. 1. When work contracted for is not done or is done incorrectly, this would appear to be a breach of contract. 2. Or, one of the parties may have been led to form untrue conclusions as to the subject matter of the contract by statements of the other party, quite innocently made, or by omissions in the other party's statements, again quite innocent of any fraudulent intention. The person who was thus misled, if induced thereby to enter into the contract, can rescind it, but cannot claim damages. 3. Or, there may be mistake, one party reasonably thinks he is contracting for one thing (X), while the other reasonably thinks he is to supply something else (Y); here no contract comes into existence at all.

Let us assume now that an E.D.P. user contracts with a service bureau outlet, franchised from a service bureau, to do processing for it, the E.D.P. user. Let us also assume the service bureau outlet has no computer or software but forwards the source documents of the E.D.P. user to the service bureau under its franchise agreement with it for processing. Further, suppose the service bureau performs services badly. The E.D.P. user suffers loss because of the defective services and he claims damages from the service bureau. There is no contract between the service bureau and the E.D.P. user but they are sufficiently close in relationship that the service bureau owes a duty of care to the E.D.P. user and having defaulted in this duty of care is liable to him in damages.[23] None of these remedies give protection to the programme or to misuse of it.

Now let us assume that by error the service bureau returns to the E.D.P. user not only the source documents and the output but erroneously a copy of the programme which is a trade secret of the service bureau. There being no contract between these parties, the service bureau and E.D.P. user, and no patent rights on the programme in favour of the service bureau the programme could be disposed of by the E.D.P. user or used with impunity or without liability. No breach of trade secret will have taken place because there is no contract between the parties upon which it can depend.[24]

CONCLUSIONS

It goes without mentioning that the software, and more particularly the programme, should be kept under lock and key when not in use. Further, object decks should be used wherever possible during processing rather than source decks as the former are much more difficult to utilize on other configuration environments, even if the same computer hardware is used. It is further advantageous to mark all documents, particularly client source documents from which data might be prepared, as "private and confidential".

When ordering new coding sheets or computer cards or printing supporting software documents one should include thereon the universal copyright symbol as follows: © *name of organization, year.* Although this is unnecessary in Canada,[25] it is helpful to protect what copyright protection there may be in the data eventually disposed on the card, especially when the data is to be used in those countries, such as the United States, which are signatories to the Universal Copyright Convention. Further, I would recommend that one of the "Remarks" card of a programme deck, such as would be found in a COBOL source deck, include the universal copyright symbol. Further, a careful systematic review should be conducted as to a possible patent position for programmes.

It is important to emphasize that the fact that a company deals in software and programmes does not elevate it to a preferred position within the law nor does it subject it to special scrutiny. As a result when one contracts for EDP services or equipment, whether as a client of a service bureau or as a user of hardware, the contractual arrangement entered into between the parties is the dominant controlling factor (although not necessarily the only).

As a result I believe that, since we are dealing in a technological area with which our courts have had little if any experience, extreme care should be taken to ensure that any contractual relationship is reduced to precise written form. Such a written contract, even if only for a single "one shot" job, should cover the following items in unmistakeable terms:

1. description of work to be done (in clear accurate language);
2. charges and extra-ordinary charges;
3. performance period;
4. that the work to be done is strictly confidential and an undertaking not to divulge it, by the appropriate party;
5. preservation of records for what period (where, at whose cost and responsibility);
6. liability for errors in,
   (a) input data or in
   (b) processing, or both, because of
      (i) equipment malfunction or
      (ii) programme malfunction; or both;
7. limitation, if any, of liability under 6;
8. identification of liaison persons of each of the contracting parties;
9. title to master files created (right to retain copies);
10. title to programmes created or used (right to retain copies);
11. title to data input (right to retain copies);
12. title to data output (right to retain copies);
13. liability for inadvertent disclosure to (any unauthorized person or persons).

APPENDIX "A"

(Name of Employer)

Oath of Office & Secrecy

I, ______________________________

do solemnly and sincerely swear that I will faithfully and honestly fulfill the duties which devolve upon me by reason of my employment with (name of employer) of the City of (name of city) and that I will not, without due authority in that behalf, disclose or make known any matter which comes to my knowledge by reason of such employment.

So help me God.

SWORN before me at the
City of
in the County of
this day of ______________________
19 .

A Commissioner, etc.

APPENDIX "B"

(Name of Employer)

TERMINATION OATH

Date __________

TO WHOM IT MAY CONCERN

I hereby certify and clearly understand that I am bound by the Oath of Secrecy which I have taken with (name of employer) following the termination of my employment or association in the same manner and to the same extent as during such employment or association.

I also hereby certify that I have in my possession no report, notebooks or other documents except as fully disclosed and specifically permitted by (name of employer) in writing, containing any information which has come to my knowledge by reason of my working in the offices or using the facilities of (name of employer).

I further certify that I have returned all the books and other material borrowed from the Library of (name of employer), or any other documents which may have come into my possession and that I have no outstanding financial obligations to (name of employer) and that I have returned all keys and passes which were placed in my charge in any way relating to (name of employer).

____

____
(Witness)

AUTHOR'S NOTE

to

Protecting Technology Software and Data Information

Since the presentation of this paper, the Canadian Commissioner of Patents held in "Counting Predetermined Bits in a Data Word", S.N. 961,392, filed May 26, 1966 (reported in the Patent Office Record — Canada, Volume 100 No. 3, 18 January, 1972, page vii) that claims to a computer programme *per se* are not patentable but that claims to a new and novel method for controlling a machine or of programming a machine (ie., a process for conditioning the operation of a data processor) are patentable. This is the first definitive decision in relation to patentability of computer programmes in Canada. It is now clear that Canada has essentially followed the English law in this area. As such, patents on computer programmes *per se* are not patentable; hence claims to algorithms alone are not patentable. If, however, claims are framed to the use of a computer by controlling it or operating it, according to an algorithm, in a certain new and novel way, there is patentability.

This "formal" distinction between patentable subject matter and unpatentable subject matter is, in my opinion, unfortunate since the word "art" is included within the definition of "invention" in the Canadian Patent Act while the same does not appear in the English Patent Act. Secondly, the formal distinction does not solve the practical problem of unauthorized reproduction of a new and novel programme itself; for, it would appear, abundantly clear from this recent Commissioner's decision, that the Canadian patent monopoly cannot be extended to the programme but only to the use of it in controlling or operating or conditioning a computer.

How is programme reproduction, as distinguished from programme usage, to be protected? The suggestions in the above paper appear to provide the only present alternatives until, hopefully, sometime in the future, the Supreme Court of Canada lays these ambiguities at rest with a final and binding decision rendering programmes *per se* patentable, or Canadian laws are appropriately amended.

[1] *Patent Act* R. S. C. 1970, P-4 s. 2(d).

[2] Patents — United States Code 35, s. 101.
Inventions patentable
Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

[3] *Rohm & Haas Co. v. Commissioner of Patents*, (1959) Ex. C. R. 159, 29 C. P. R. 137, *Ciba Ltd. v. Commissioner of Patents* (1959) S. C. R. 378, 30 C. P. R. 318.

[4] *The Patent Acts* 1949-1961 (U. K.) s. 101(1) provides — *"invention" means any manner of new manufacture the subject of letters patent and grant of privilege within section six of the Statute of Monopolies and any new method or process of testing applicable to the improvement or control of manufacture, and includes an alleged invention.*

[5] *In re. Musgrave* (1970), 167 USPQ 280 at page 289.

[3] Published in the Official Gazette, October 15, 1968.

[7] Proposal for New Legislation to Protect Computer Programming — Elmer Sibi — (1969) Bulletin, Copyright Society of the U.S.A., page 280 reproduces and explains the pertinent portions of the IBM proposal.

[8] (a) Inventor — Musgrave, Albert W.
U.S. S.N. — 496,735
Filed — 30 September, 1965
Title — Corrections for Seismic Data Obtained from Expanding Spread

(b) Inventor — Mahony, John P.
U.S. S.N. — 243,203
Filed — 5 December, 1962
Patent No. 3,539,997
Issued — 10 November, 1970
Title — Synchronizing Circuit*

(c) Inventors — Prater, Charles D. and Wei, James
U.S. S.N. — 155,236
Filed — 20 November, 1961
Title — Reduction of Data from Spectral Analysis

Even IBM filed patents on programmes see
Inventors — Belady, Laszlo A.; Keuhner, Carl J.; Lehman, M.; Randell, Brian
U.S. S.N. — 791,272
Filed — 15 January, 1969
Issued — 28 June, 1971
Patent No. 3,588,839
Title — Hierarchical Memory Updating System

*A corresponding Canadian application issued into Canadian Letters Patent No. 767,211 dated 12 September, 1967. All of the apparatus claims of the Canadian patent are identical to those issued in the U.S. patent to Mahony. The Canadian patent also contains certain method claims, namely, method claims 13, 14, 15 and 16 (reproduced below) and substantially correspond to U.S. claims, 15 and 16 which were in issue before the Court of Customs and Patent Appeal *In Re. Mahony* 164 USPQ 572 (1970). In that case the court allowed the claims, even though the same read on "mental steps". You will note that the Canadian method claims essentially define an algorithm and are as follows:

13. A method for establishing which bits in a bit stream are data bits and which are framing bits where said framing bits appear in predetermined positions and have a predetermined sequence of values comprising the steps of
(1) comparing to one another the values of bits in respective bit positions in successive equal length groups of bits,
(2) registering which respective positions in said groups of bits have a sequence of bit values inconsistent with said predetermined framing sequence,
(3) comparing the relative positions of the registered respective positions to the relative positions of said data bits in said bit stream, and
(4) determining when said relative positions of said registered respective positions conform to only one pattern of bit positions in said bit stream containing data bits in the same relative positions.

14. A method for establishing which bits in a bit stream are data bits and which are framing bits where said framing bits appear in predetermined positions and have a predetermined sequence of values comprising the steps of
(1) comparing to one another the values of bits in respective bit positions in successive equal length groups of bits,
(2) registering which respective positions in said groups of bits have a sequence of bit values consistent with said predetermined framing sequence,
(3) comparing the relative positions of the registered respective positions to the relative positions of said framing bits in said bit stream, and
(4) determining when said relative positions of said registered respective positions conform to only one pattern of bit positions in said bit stream containing framing bits in the same relative positions.

15. A method for establishing which bits in a bit stream are data bits and which are framing bits where said framing bits appear in predetermined positions and have a predetermined sequence of values comprising the steps of
(1) comparing to one another the values of successive bits separated by a predetermined number of bit positions,
(2) keeping a record of those bit positions having contained compared bits of values inconsistent with said predetermined framing sequence, and

(3) identifying the remaining unrecorded bit positions as framing bit positions when said bit positions having contained said inconsistent bit values have relative positions conforming to only one pattern of bit positions in said bit stream containing data bits in the same relative positions.

16. A method for establishing which bits in a bit stream are data bits and which are framing bits where said framing bits appear in predetermined positions and have a predetermined sequence of values comprising the steps of

(1) comparing to one another the values of successive bits separated by a predetermined number of bit positions,

(2) keeping a record of those bit positions having contained compared bits of values consistent with said predetermined framing sequence, and

(3) identifying the recorded bit positions as framing bit positions when their relative positions conform to only one pattern of bit positions in said bit stream containing framing bits in the same relative positions.

(Canadian claim 15 is identical to U.S. claim 15 while the other Canadian claims are broader in scope than the other U.S. method claim allowed.)

[9] *Prater and Wei* 162 U.S.P.Q. 541 (1969); *In re. Mahoney* 164 U.S.P.Q. 572 (1970); *In re. Musgrave* 167 U.S.P.Q. 289 (1970). In the latter case the court said "all that is necessary in our view to make a sequence of operational steps a single statutory process. . . is that it be in the technological arts. . ." These positions were essentially the same as the West German Federal Patent Court had enunciated in early 1968 in *Philips Electrologica GmbH* Docket No. 17W(pat) 6/68. The German Court held that *technology in the meaning of the patent law is the using of technical means for a technical purpose. An invention in the sense of patent law is always a rule for a technical art. . . the parts of a programme controlled machine are technical means without doubt. The using of these means works toward a technical purpose, that is, for the automatic solution of the aforesaid problem. . . The object of the invention is, therefore in the field of technology in the sense of the patent system.*

[10] *Glee & Harris's Application* (1966) R. P. C. 1944.

[11] *supra*, note 4.

[12] Official Journal (Patents) (U.K.) 5 March, 1969, page 683 — *Patent Applications for Computer Programs. The following notes on Office Practice are provided for the guidance of applicants:-*

(1) The Patents Act states that patents may be granted only for inventions which are either manners of manufacture or methods of testing applicable to the control of manufacture.

(2) The Patent Office does not undertake to express a view on the patentability of an invention until a patent application, including specification describing the invention and specifying the scope of the protection desired, has been filed.

(3) Patents are not granted for computer programs expressed as such. No objection is, however, raised in respect of inventions for novel methods of programming computers to operate in a specified way, or for computers so programmed, or for a tape, etc., having recorded on it a novel program to control a computer to operate in a stated way. Nor, in general, is objection taken to inventions involving new uses of computers in controlling manufacturing processes or to methods of testing, involving novel programs, for computers under manufacture.

(4) It is to be noted that the Patent Office will refuse to proceed with an application only when it is clear that on no reasonable view could the invention be said to be within the definition in (1) above. Also, it is emphasised that the grant of a patent in the Patent Office carries no guarantee of validity: this is a matter for determination by the High Court.

(5) This replaces the earlier Notice dated December, 1965, sent out under reference I.P.D. 38411, but not published in the Official Journal (Patents).

[13] Notice of the Commissioner of Patents (Canada) July 1970 stated, item 3(i) — *A program, algorithm or set of instructions to cover the operation or use of a computer or any other device, rules for games and the like, or a method of its establishment, is unpatentable.* Is this statement not inconsistent with the method claims allowed in the Canadian Letters Patent 787,212, note 8 *supra*? Is it true that the Mahony patent related to a synchronizing circuit, more particularly to a shift register of an electronic data processor. It is clear that the Canadian method claims allowed are broad enough to define the programming of a device to achieve the shift registering properties of the particular shift register disclosed in the patent. Where then does this leave the Canadian Commissioner's guidelines?

[14] Queens Printer (Canada) 1971.

In the light of the Economic Council Report, the Patent and Trademark Institute of Canada recommended, 6 July, 1971, that computer programmes should be patentable in Canada. They said in part:

Whether computer programs should be excluded from patentability is a subject of special interest. A majority of the Institute membership believes that computer programs should be patentable.

Those in favour of the patentability of computer programs argue that the European definition proposed does not exclude them, and that both the U.S. and British courts have endorsed the patentability of computer programs when properly claimed. While there may be little hope in the near future of Canada's becoming a world leader in the design and manufacture of hardware, there is nothing (except lack of proper protection) to prevent Canada making a significant contribution to the software art. Now that the courts in other countries are beginning to hand down decisions generally favourable to the patentability of software, it is to be hoped that Canada will not place itself in the unhappy position of having limited its potential by a hasty banning of effective protection in this field of the future.

[15] In the copyright section of the Report, page 147, the Economic Council of Canada, in relation to software says — *Like early railways and aircraft, much of the new information technology (particularly its software component) was 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.*

[16] *Copyright Act* R. S. C. 1970, C-30.

[17] *Supra*, note 16, s. 2.

(n) "literary work" includes maps, charts, plans, tables, and compilations;

(u) "work" includes the title thereof when such title is original and distinctive;

(v) "every original literary, dramatic, musical and artistic work" includes every original production in the literary, scientific or artistic domain, whatever may be the mode or form of its expression, such as books, pamphlets, and other writings, lectures, dramatic or dramatico-musical works, musical works or compositions with or without words, illustrations, sketches, and plastic works relative to geography, topography, architecture or science.

[18] Economic Council of Canada Report (supra, note 14) page 130 states:

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". "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. Though these may well be the basic conditions for a copyright they are inadequately expressed in the definitions contained within the present Canadian Copyright Act, *supra*, notes 16 and 17, particularly, in relation to transmitting or storing information in electrical or magnetic impulses as in a ferrite core or on magnetic tape. There is a serious question whether or not data in core or on a magnetic tape is disposed in or on a "mechanical contrivance". If the ferrite core is considered, *by the courts*, to be an electrical storage contrivance and not a mechanical contrivance copyright may not exist to protect a work so stored. The result would be free transmission without liability of data stored in computers whether they be in core or tape. If the data were disposed on Hollerith cards, the data in that form as well as other conventional mechanical forms, would be subject to copyright. This would create the unusual condition that reproduction of data disposed on Hollerith cards would be copyright infringement while reproduction of the same data in core or on magnetic tape even though recorded onto Hollerith cards would not be copyright infringement. (The Economic Council of Canada Report, page 132, suggests that : — *"Videotapes"* a form of magnetic tape *however, do get copyright protection because they are "recorded" in a "material form"* — but see Mitches & Mitches submission to The Economic Council of Canada, 30 January, 1970.)

[19] *Trade Marks Act* R. S. C. 1970, T-10s.2(t), (v).

[20] Not quite. At first only deeds under seal were enforceable. In the reign of Elizabeth I ordinary contracts were recognized.

[21] *International Tools Ltd. v. Killar et all* (1968), 54 C. P. R. 171 (Ont. S. C.)

[22] *Robin — Nodwell Mfg. Ltd. v. Foremost Developments Ltd. and Nodwell* (1968), 52 C. P. R. 244 (Alta S. C.)

[23] *M'Alister (or Donoghue) v. Stevenson* (1932) A. C. 562

[24] *Supra,* note 22. A trade secret is protected by our courts against all people as long as it remains a trade secret. As such, if the trade secret can be kept secret forever, the court will preserve the secret from illegitimate disclosure, but once it becomes publicly disclosed, even if surreptitiously disclosed, it is no longer capable of trade secret status and will not be protected.

[25] Registration of copyright under Canadian law is unnecessary.

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WHERE DOES THE SCOTT AMENDMENT FIGHT LEAVE LICENSE LIMITATIONS?

by
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As of the present date, it appears likely that the fight for the Scott amendments is lost. While there is a possibility that the issue will receive further consideration from the full Judiciary Committee of the Senate, chances of enactment of the amendments seem dim. I propose tonight to discuss the background of the amendments, what they sought to do, and where their apparent defeat leaves license limitations. I will deal only with patent licensing, leaving know-how licensing to some other occasion.

By the background of the Scott amendments, I mean, first, the pre-existing law, and second, the Antitrust Division's recent effort to narrow the scope of permissible limitations.

The law of patent license limitations before the current attack.

Under the statutes and the decided cases, the basic question is whether license limitations operate only within the patent grant. If they do, they are governed solely by the patent law, not by the antitrust laws. If they operate outside the patent grant, the antitrust laws apply just as though there were no patent.

The inapplicability of antitrust considerations within the limits of the patent grant stems from the constitutional provision empowering Congress to promote the progress of science and the useful arts "by securing for limited times to * * * inventors the exclusive right to their * * * discoveries". It stems further from the provisions of Section 154 of the Patent Code:

> "Every patent shall contain * * * a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the *right to exclude others from making, using, or selling the invention* throughout the United States".*

As pointed out by Professor Oppenheim in a recent article**, the effect of these provisions was recognized by the Supreme Court in *Mercoid v. Mid-Continent,* 320 U.S. 661, 665 (1944), in which Mr. Justice Douglas stated:

> "The patent laws which give a 17-year monopoly on 'making, using or selling the invention' are *in pari materia* with the antitrust laws and modify them *pro tanto*".

In other words, antitrust considerations are inapplicable within the patent grant.

The following license limitations have generally been held permissible, regardless of antitrust considerations — even though they restrict competition to some extent, and even though someone might not deem them reasonable or necessary for the protection of the patentee — because they are within the patent grant:

(a) Licenses limited as to territory, exclusive or non-exclusive. (Even territorially exclusive licenses are specifically authorized by Section 261 of the Patent Code, which provides:

> "The * * * patentee * * * may * * * grant and convey an exclusive right under his * * * patent * * * to the whole or any specified part of the United States".

(b) Licenses limited as to field, at least when non-exclusive, and perhaps also when exclusive. (There is no specific statutory authorization for exclusivity as to field, as there is for territorial exclusivity.)

(c) Licenses limited as to quantity.

(d) Free choice of licensees. (The only case I know of to the contrary is *Allied v. Heatbath,* 300 F. Supp. 656 (N.D. Ill., 1969), to which I will return later.)

(e) Royalty in any amount, at least when measured by patent use. (The indication of the 7th Circuit in *American Photocopy v. Rovico,* 359 F.2d 745 (1967) that *excessive* royalties may be illegal, has since been significantly qualified by that Court). The use of a royalty base other than patent use — or a basic minimum — must have the uncoerced consent of the licensee (*Zenith v. Hazeltine,* 359 U.S. 100, 1969).

Less clearly within the patent grant and less clearly legal, is a license provision fixing the price which a manufacturing licensee may charge for the patented article. While the validity of such a provision was sustained unanimously by the Supreme Court in *United States v. General Electric Company,* 272 U.S. 476 (1926), it survived by only a four to four vote in *United States v. Huck,* 382 U.S. 197 (1965).

The following types of limitations, among others have been held to be outside the patent grant, and therefore fully subject to antitrust considerations:

(i) Provisions tying the licensee to the use of supplies, or other articles or services, not covered by the patent.

(ii) Provisions for control of the resale price of patented articles, or of the initial price of unpatented