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A. David Morrow
P. Bradley Limpert
INTELLECTUAL PROPERTY
PROTECTION OF SOFTWARE
IN CANADA

by A. DAVID MORROW† and P. BRADLEY LIMPERT‡

I. INTRODUCTION

In Canada, both the Criminal Code¹ and the Copyright Act² deal explicitly with computer software protection. Although currently no field of law specifically protects computer programs, computer programs are protected by existing patent, trademark/trade secret and fiduciary duty laws.

II. MODE AND EXTENT OF PROTECTION

Following is a summary of the protection of computer software under Canadian law.

A. TRADE SECRETS AND CONTRACTS

Because there are no restrictions on the kinds of subject matter that may be protected as a trade secret, computer software, like any other valuable commercial information, may be protected by a contract between parties. It may receive protection from implied contractual restrictions on the use and disclosure of trade secrets.

Even in the absence of an express contractual agreement, Canadian law imposes an implied duty on employees not to use or disclose trade secrets acquired in the scope of employment. However, a distinction is made between trade secrets and trade skills acquired in the course of employment. An employee may use skills acquired from former employment, but may not use trade secrets to his advantage. The distinction is difficult to precisely define in some cases, and is demonstrated by the

† Partner, Smart & Biggar, Ottawa, Canada.
‡ Student-at-Law, Smart & Biggar.
¹ Criminal Law Amendment Act, R.S.C., ch. 27, § 45 (Supp. 1 1985) (adding § 342.1 immediately after R.S.C. C-46, § 342, 1985) (Can.).
² Copyright Act, R.S.C., ch. C-42, § 27(2) (1985) (Can.).
case of Software Solutions Associates Inc. v. Depow.\textsuperscript{3}

Depow was a former President and Chief Executive Officer of Software Solutions Associates, Inc., ("Software Solutions").\textsuperscript{4} During his employment with Software Solutions he created a physicians office management system.\textsuperscript{5} Subsequently, Depow left Software Solutions and formed his own company where he developed an office management system that was substantially similar to the system he developed at Software Solutions.\textsuperscript{6} The court found that Depow had a fiduciary relationship with Software Solutions,\textsuperscript{7} and that he breached his fiduciary duty by using trade secrets and confidential information to develop the new management system.\textsuperscript{8}

In reaching its conclusion, the court considered several factors, including the specificity and design of the original program and the confidentiality with which the original program was created and marketed.\textsuperscript{9} Because the program was specifically designed for this market and was sold with a restrictive licensing agreement, the corporation justifiably expected strict confidence from Depow.\textsuperscript{10} Therefore, despite the fact that only nineteen lines of code were identical between the two programs, Depow had substantively duplicated the function and purpose of the original program, and breached his fiduciary duty to Software.\textsuperscript{11}

B. PATENTS

The Commissioner of Patents and the Patent Appeal Board have shown increasing willingness to regard a process or an apparatus containing a computer or computer program as patentable subject matter. The most recent guidelines on the patentability of computer software state:

1. Unapplied mathematical formulae are considered equivalent to mere scientific principles or abstract theorems which are not patentable under section 27(3) of the Patent Act.
2. The presence of a programmed general purpose computer or a program for such computer does not lend patentability to, nor subtract patentability from, an apparatus or process.
3. It follows from 2, that new and useful processes incorporating a computer program, and apparatus incorporating a programmed computer, are directed to patentable subject matter if the computer-related

\textsuperscript{3} 25 C.P.R.3d 129 (N.B. Trial Ct. 1989).
\textsuperscript{4} Id. at 131.
\textsuperscript{5} Id. at 132.
\textsuperscript{6} Id. at 135-36.
\textsuperscript{7} Software Solutions Assoc. Inc., 25 C.P.R.3d at 139-140.
\textsuperscript{8} Id. at 140.
\textsuperscript{9} Id. at 139.
\textsuperscript{10} Software Solutions Assoc. Inc., 25 C.P.R.3d at 139.
\textsuperscript{11} Id. at 139-140.
matter has been integrated with another practical system that falls within an area which is traditionally patentable. This principle is illustrative of what types of computer-related applications may be patentable, and is not intended to exclude other computer-related applications from patentability.

The first guideline indicates the Canadian Patent Office's revised approach to computer software. It implies that a process or apparatus that applies a mathematical formula is patentable subject matter. The guideline also indicates that the Patent Office will not consider a non-mathematical algorithm to be per se unpatentable. These guidelines are clarified in the following cases.

1. Schlumberger v. The Commissioner of Patents\textsuperscript{12}

A process for converting oil-well data into useful information in human-readable form through a computer program was held to be not patentable.\textsuperscript{13} The essential inventive step was found to reside in the program.\textsuperscript{14} Therefore, the court held that calculations and formulae are not inherently patentable subject matter, and that the fact that the calculations were made by computers rather than by persons does not render them patentable.\textsuperscript{15}

2. Re Application for Patent No. 178,570\textsuperscript{16}

In this decision the Patent Appeal Board affirmed and expanded upon the decision in Schlumberger.\textsuperscript{17} At issue was a computer system for computing and displaying the current value of an investment portfolio in view of the changing values of the underlying investments.\textsuperscript{18} The Patent Appeal Board held that this did not constitute patentable subject matter, stating:

In computer-related subject-matter, unless the actual physical aspects or embodiments used are patentable or unless the inherent capabilities of the computer have been combined with another system, which is already on its merits within a statutory field of invention and thereby produce either a new tangible result or an improvement to tangible result, then the Board considers it very difficult to find a patentable invention. We take the view that a process or procedure for using a known computer to process information, without further integration of that information into some practical system, is not patentable subject-

\textsuperscript{13}  Id. at 206.
\textsuperscript{14}  Id. at 205.
\textsuperscript{15}  Id. at 206.
\textsuperscript{17}  Id. at 486.
\textsuperscript{18}  Id. at 484.
The Board further held that it was irrelevant whether the procedures or algorithms were mathematical in nature or not.\textsuperscript{20}

3. \textit{Re Application for Patent of IBM Corporation}\textsuperscript{21}

In this decision, the Board held that a method of storing, retrieving and indexing data that reduced wear on various electro-mechanical components constituted patentable subject matter.\textsuperscript{22} The Board stated, "we are satisfied that the disclosed method is directed to more than the various calculations to be made and to more than a mere scientific principle or abstract theorem."\textsuperscript{23}

4. \textit{Re Application for Patent of Seiscom Delta Inc.}\textsuperscript{24}

In this decision the patent application related to a three-dimensional plot of information on a two-dimensional display.\textsuperscript{25} A computer and computer software processed the data and displayed the results using a isometric view on a computer screen.\textsuperscript{26} The Patent Appeal Board held that this constituted patentable matter as the computer program was not just displaying data, but providing a new and inventive presentation of the data.\textsuperscript{27} This holding seems to represent a departure from the decision in \textit{Re Application for Patent No. 178,570},\textsuperscript{28} where the Board stated that a claim is not patentable subject matter where "the process being claimed occurs entirely within the computer system and the end result is not a real change in a tangible thing . . . [but is] merely information."\textsuperscript{29}

5. \textit{Re Application for Patent of Tokyo Shibaura Electronic Co.}\textsuperscript{30}

The Board found that a control system incorporating a computer system for control of an industrial plant was patentable subject matter.\textsuperscript{31} The system was found to be directed to more than a mere scientific principle or abstract theorem.\textsuperscript{32}

\begin{itemize}
\item \textsuperscript{19} \textit{Re Application for Patent No. 178,570}, 2 C.P.R.3d at 487.
\item \textsuperscript{20} Id. at 488.
\item \textsuperscript{21} Id. at 488-89.
\item \textsuperscript{23} Id. at 103.
\item \textsuperscript{24} Id.
\item \textsuperscript{26} Id. at 507.
\item \textsuperscript{27} Id. at 510.
\item \textsuperscript{28} Id.
\item \textsuperscript{30} Id. at 488-89.
\item \textsuperscript{31} Id.
\item \textsuperscript{32} Id.
\end{itemize}
6. **Re Application For Patent of Batelle Memorial Institute**\(^{33}\)

The applicant claimed an apparatus for reducing noise in wave-form signals.\(^{34}\) The Board held the device patentable subject matter even though it comprised electronic components such as analog-digital converters which applied a mathematical function to the input signal.\(^{35}\)

7. **Re Application of Fujitsu Ltd.**\(^{36}\)

In this decision, the Board heard an appeal from an examiner's rejection of a claim relating to a system for releasing the deadlock caused in a multi-tasking computer system which was required to use the same element for different tasks.\(^{37}\) The claim included tables for holding, releasing, and duplicating tasks.\(^{38}\) The Board allowed the appeal because part of the function of these tables was implemented in hardware.\(^{39}\) Similarly, in **Re Application of Honeywell Information System Inc.**,\(^{40}\) the Board held that a claim is patentable subject matter when it comprises a method and "combination of [hardware and software] elements working cooperatively in a device that lies in a patentable area."\(^{41}\)

8. **Re Application of Vapor Canada Ltd.**\(^{42}\)

In this decision, the Board held that a computer system linked to an otherwise unoriginal combination of elements may comprise patentable subject matter.\(^{43}\) Specifically, the Board allowed a claim for a data collection device, notwithstanding that the only novel aspect of the invention was the use of a computer system that included memory chips and external terminals.\(^{44}\)

9. **Re Application for Patent for Mobil Oil Corp.**\(^{45}\)

In this decision the Board reiterated that, in some circumstances, a method for merely manipulating information may constitute patentable subject matter.\(^{46}\) The patent claimed a method to reduce echoes in seis-
The method included digital signal processing performed by a computer. The Board held that the steps were not mere calculations, but were actually incorporated into the seismograms to reduce echoes and were not related solely to calculations or abstract theorems.

C. COPYRIGHT

The Canadian Copyright Act was amended in 1988 and explicitly defined computer programs as literary works. Accordingly, computer programs are proper subject matter for copyright. The Act defines a computer program "as a set of instructions or statements, expressed, fixed, embodied or stored in any manner, that is to be used directly or indirectly in a computer in order to bring about a specific result."

However, certain exceptions to infringement are provided by the Act. Section 27(2) states:

§ 27(2) The following acts do not constitute an infringement of copyright

(l) The making by a person who owns a copy of a computer program, which copy is authorized by the owner of the copyright, of a single reproduction of the copy by adapting, modifying or converting the computer program or translating it into another computer language if the person proves that

(i) the reproduction is essential for the compatibility of the computer program with a particular computer;

(ii) the reproduction is solely for the person's own use; and

(iii) the reproduction is destroyed forthwith when the person ceases to be the owner of the copy of the computer program; and ***

(m) the making by a person who owns a copy of a computer program, which copy is authorized by the owner of the copyright, of a single reproduction for backup purposes of the copy or of a reproduction referred to in paragraph (l) if the person proves that the reproduction for backup purposes is destroyed forthwith when the person ceases to be the owner of the copy of the computer program.

The following are leading cases in Canadian copyright jurisprudence.

47. *Id.* at 574-75.
48. *Id.* at 576.
49. *Mobil Oil Corp.*, 24 C.P.R. at 576.
50. Copyright Act, R.S.C., ch. C-42 § 2 (1985) (Can.).
51. *Id.* § 5 (adding § 27(2)(l)&(m) to R.S.C., ch. C-42 § 27(2) (1985)) (Can.).
1. **IBM Corporation v. Spirales**\textsuperscript{52}

   In reviewing relevant jurisprudence in other countries, the Court held that computer programs, including a program recorded in ROM, are properly subject matter of copyright in Canada as literary works.\textsuperscript{53}

2. **Canavest v. Lett**\textsuperscript{54}

   In an interlocutory injunction application, the Court refused to order the defendant to deliver research notes relating to the creation of a computer program, giving deference to the "private study" provisions of the Copyright Act.\textsuperscript{55} The Court held that a computer program is a protectable "work" under the Copyright Act.\textsuperscript{56}

3. **Apple Computer v. MacIntosh Computers**\textsuperscript{57}

   In this decision, the Supreme Court held that programs embedded in a silicon chip are a reproduction of the programs in assembly language and as such are protected by copyright.\textsuperscript{58} It further held that "these programs constitute a form of expression that is conceptually and functionally unique and cannot be regarded as a merger of idea and expression."\textsuperscript{59}

4. **Amusements Wiltron Inc. v. Mainville**\textsuperscript{60}

   In this case, the plaintiff hired an individual to write and modify certain computer programs for a video poker game.\textsuperscript{61} Subsequently, the programmer joined another person in a business venture and assigned copyright in the program to that third person.\textsuperscript{62} The Court was faced with the issue of who owned the copyright in the programs.\textsuperscript{63} The Court held that the programmer had worked for the plaintiff under a contract for services, and, therefore, the programmer owned the copyright.\textsuperscript{64} The programmer had never explicitly assigned copyright in the program to the plaintiff and he was free to deal with it as he wished.\textsuperscript{65} In reaching...

\textsuperscript{53} Id. at 192.
\textsuperscript{54} 2 C.P.R.2d 386 (Ont. Trial Ct. 1984).
\textsuperscript{55} Id. at 394.
\textsuperscript{56} Id. at 387.
\textsuperscript{57} 2 S.C.R. 209 (Can. 1990).
\textsuperscript{58} Id. at 210.
\textsuperscript{59} Id.
\textsuperscript{60} 40 C.P.R.3d 521 (Que. S.C. 1991).
\textsuperscript{61} Id. at 523.
\textsuperscript{62} Id.
\textsuperscript{63} Id. at 529.
\textsuperscript{64} Amusements Wiltron Inc., 40 C.P.R.3d at 528-29.
\textsuperscript{65} Id. at 529-30.
this conclusion, the Court examined four factors.\textsuperscript{66}

First, the Court considered the ownership of tools\textsuperscript{67} and found that the programmer used his own personal computer and worked at home.\textsuperscript{68} Second, the Court considered whether the programmer was in a subordinate relationship.\textsuperscript{69} Although the plaintiff had provided the programmer with certain specifications and requirements, he never indicated to the programmer the manner in which he should proceed.\textsuperscript{70} Thus, the programmer was independent as to his method of work.\textsuperscript{71} The third factor was the risk of loss and chance of profit.\textsuperscript{72} The programmer was paid on the condition that the programs functioned effectively.\textsuperscript{73} Thus, he assumed the risk of loss if his work was ineffective.\textsuperscript{74} Finally, the Court considered the extent to which the programmer was integrated into the plaintiff's business.\textsuperscript{75} The Court considered additional factors to decide whether the defendant was integrated and the degree to which he was integrated.\textsuperscript{76} These factors include: whether the defendant received orders from his superiors, whether the defendant worked at the workplace, and whether the defendant provided reports on the use of this time.\textsuperscript{77} Consequently, the Court concluded the defendant did not integrate himself into the plaintiff's business.\textsuperscript{78}

5. \textit{Applied System Technologies v. Sysnet Computer Systems}\textsuperscript{79}

The plaintiff and applicant for an interlocutory injunction alleged the defendant had copied its software product and was selling these copies.\textsuperscript{80} The Court denied the application despite finding that the plaintiff had established through its expert a \textit{prima facie} case of copying.\textsuperscript{81} The Court found that an interlocutory injunction would likely "sound the death knell of the defendant company,"\textsuperscript{82} and that the plaintiff had not prosecuted its case with dispatch.\textsuperscript{83} However, the defendant was re-

\begin{itemize}
  \item \textsuperscript{66} \textit{Id.} at 525.
  \item \textsuperscript{67} \textit{Id.} at 526.
  \item \textsuperscript{68} \textit{Amusements Wiltron Inc.}, 40 C.P.R.3d at 526.
  \item \textsuperscript{69} \textit{Id.}
  \item \textsuperscript{70} \textit{Id.} at 526-27.
  \item \textsuperscript{71} \textit{Id.} at 527.
  \item \textsuperscript{72} \textit{Amusements Wiltron Inc.}, 40 C.P.R.3d at 527.
  \item \textsuperscript{73} \textit{Id.}
  \item \textsuperscript{74} \textit{Id.}
  \item \textsuperscript{75} \textit{Id.}
  \item \textsuperscript{76} \textit{Amusements Wiltron Inc.}, 40 C.P.R.3d at 527.
  \item \textsuperscript{77} \textit{Id.}
  \item \textsuperscript{78} \textit{Id.}
  \item \textsuperscript{79} 40 C.P.R.3d at 405 (Ont. Gen. Div. 1991).
  \item \textsuperscript{80} \textit{Id.} at 406.
  \item \textsuperscript{81} \textit{Id.} at 407.
  \item \textsuperscript{82} \textit{Id.} at 408.
  \item \textsuperscript{83} \textit{Applied Systems Technologies}, 40 C.P.R.3d at 408.
\end{itemize}
quired to post a $100,000 bond as a contingency against any possible damage award.84

6. Dubois v. Systemes de Gestion et D'Analyse de Données Média85

In this judgment, an application for an interlocutory injunction was denied.86 The applicant was the plaintiff in an action for copyright infringement of computer software.87 He claimed that he had developed a program for the defendant and retained ownership of copyright in the program.88 The Court denied the application and found that the plaintiff had developed the program while an officer of the defendant.89 As an officer, he had a duty of loyalty that prevented him from claiming ownership.90

7. GEAC J & E Systems Ltd. v. Craig Erickson Systems Inc.91

GEAC applied for, and was granted, an interlocutory injunction against Craig Erickson Systems Inc. ("CES"), in an action alleging copyright infringement, misuse of confidential information, and breach of fiduciary obligations.92 The injunction prohibited CES from copying, reproducing, using, modifying, altering, supporting, or enhancing a certain secondary software module and program which were copied or reproduced from GEAC.93 In addition, the order prohibited use or disclosure of GEAC program documents or customer lists.94

GEAC claimed that CES violated numerous provisions of the order.95 For example, CES used JES's data structures to extract data from

84. Id. at 409.
85. 41 C.P.R.3d 92 (Que. S.C. 1991).
86. Id. at 101.
87. Id. at 94-95.
88. Id.
89. Dubois, 41 C.P.R.3d at 105-06.
90. Id. at 106.
92. Id. at 28. The defendant, Craig Erickson, was a founder of Jonas & Erickson Software Technology, Inc. ("J & E"). Id. at 27. He left J & E to form another company, Craig Erickson Systems Inc., ("CES"). Id. Erickson then proceeded to hire programmers and senior personnel from J & E, which had made a voluntary assignment in bankruptcy. Id.
93. Id. at 28.
94. Id. at 29.
95. Craig Erickson Systems, 46 C.P.R.3d at 29. GEAC claimed that J & E breached the order by:
(1) supporting, using, copying, reproducing, modifying, altering and enhancing the J & E secondary module software . . .
(2) using the J & E secondary module programme documents, namely file layouts and source code . . .
(3) using information about J & E's customer list . . .
customer files in order to transfer the data to a non-infringing use or support.\textsuperscript{96} The Court held that CES violated the injunctive order because the file structure containing each customer's data remains the property of the software developer, GEAC.\textsuperscript{97} Therefore, CES's use of the file structure information violated the order and was held in contempt.\textsuperscript{98}

8. Delrina Corp. v. Triolet Systems Inc.\textsuperscript{99}

Delrina filed an action for an injunction against Triolet and Brian Duncombe for copyright infringement and breach of fiduciary duty.\textsuperscript{100} Delrina alleged that Duncombe created a program for Triolet that was substantially similar in form and function to a program that he had previously created for Delrina.\textsuperscript{101} The court considered a number of factors in determining whether the software Duncombe created for Triolet was copied from the software that he created at Delrina.\textsuperscript{102} Despite the fact that the two programs had similar purposes and functions, the court held that there was no breach of fiduciary duty and no copying.\textsuperscript{103} Thus, the court held that Triolet did not infringe the copyright.\textsuperscript{104}

The court found that even if Duncombe upgraded his programming skills when he wrote the software program for the plaintiff corporation, he had no duty to Delrina.\textsuperscript{105} Duncombe was not prohibited from using the skills that he acquired when he created the second program for Triolet.\textsuperscript{106} The court held that the similarities between the two programs was accounted for by the programmer's experience, methods and hab-

\textsuperscript{(4) inducing customers of J & E . . . . to disclose or make accessible the J & E secondary module software to employees for the purpose of support and enhancement . . . . [and by]}
\textsuperscript{(5) failing to return to J & E a computer or magnetic tape or disk which contained the J & E secondary module software . . . . .}

\textsuperscript{Id.}
\textsuperscript{96. Id.}
\textsuperscript{97. Id. at 34.}
\textsuperscript{98. Id. at 54. The court stated if CES had manually converted the customer data from the GEAC program to the CES program, instead of using CES' data files and converting the information electronically, it would not have breached the order. \textsuperscript{Id.}
\textsuperscript{99. 47 C.P.R.3d 1 (Ont. Gen. Div. 1993).}
\textsuperscript{100. Id. at 6.}
\textsuperscript{101. Id. at 5.}
\textsuperscript{102. \textit{Delrina}, 47 C.P.R.3d at 11-18.}
\textsuperscript{103. Id. at 19, 23.}
\textsuperscript{104. Id.}
\textsuperscript{105. Id. at 22. The court determined that Duncombe was not an employee who was not privy to secret or special knowledge. \textit{Id.} Duncombe was not a person who had contact with Delrina's customer base such that he would be able to either control business loyalties or learn any secrets about the program. \textit{Id.} Therefore, he had no fiduciary obligation to Delrina. \textit{Id.} at 23.}
\textsuperscript{106. \textit{Delrina}, 47 C.P.R.3d at 22.}
its.\textsuperscript{107} Finally, the court reasoned that since Duncombe did not copy the program from a fixed version of source code, he did not infringe the copyright.\textsuperscript{108}

9. Prism Hospital Software Inc. v. H.M.R.I.\textsuperscript{109}

The Court determined whether software had been copied by an allegedly infringing party.\textsuperscript{110} The plaintiff developed a software program for abstracting medical records. The defendant was licensed to market the program, but the defendant decided to compete with the plaintiff.\textsuperscript{111} He wrote a similar program and began to sell it.\textsuperscript{112} The plaintiff brought an action for copyright infringement, claiming that the defendant had merely copied their program.\textsuperscript{113} The Court found that there was replication of programming or logical errors and particular and distinctive solutions to programming problems indicated that the program and the source code were copied.\textsuperscript{114} It also found that no experienced or capable programmer writing software independently would have duplicated these errors in logic and design.\textsuperscript{115}

D. Criminal Law

The Criminal Code contains two provisions directly related to the protection of rights in software. The first section states:

$\S$ 342.1 (1) Everyone who, fraudulently and without color of right, (a) obtains, directly or indirectly, any computer service, (b) by means of an electro-magnetic, acoustic, mechanical or other device, intercepts or causes to be intercepted, directly or indirectly, any function of a computer system, or (c) uses or causes to be used, directly or indirectly, a computer system with intent to commit an offence under paragraph (a) or (b) or an offence under section 430 in relation to data or a computer system is guilty of an indictable offence and liable to imprisonment for a term not exceeding ten years, or is guilty of an offence punishable on summary conviction.\textsuperscript{116}

\textsuperscript{107} Id. at 13.
\textsuperscript{108} Id. at 18. The court further stated that even though approximately sixty lines of source code were directly copied from the first program into the second program, the lines copied were "\textit{de minimus} . . . and [s]uch minor copying would not sustain an action for breach of copyright." Id. at 18-19.
\textsuperscript{109} 57 C.P.R.3d 129 (B.C. Sup. Ct. 1994).
\textsuperscript{110} Id. at 220.
\textsuperscript{111} Id. at 147.
\textsuperscript{112} \textit{Prism Hospital}, 57 C.P.R. at 151.
\textsuperscript{113} Id. at 229.
\textsuperscript{114} Id. at 253-254.
\textsuperscript{115} \textit{Prism Hospital}, 57 C.P.R. at 253.
\textsuperscript{116} Criminal Law Amendment Act, R.S.C., ch. 27, $45$ (Supp. 1 1985) (Can.).
(2) In this section,

"computer program" means data representing instructions or statements that, when executed in a computer system, causes the computer system to perform a function;

"computer service" includes data processing and the storage or retrieval of data;

"computer system" means a device that, or a group of interconnected or related devices one or more of which,

(a) contains computer programs or other data, and

(b) pursuant to computer programs,

(i) performs logic and control, and

(ii) may perform any other function;

"data" means representations of information or of concepts that are being prepared or have been prepared in a form suitable for use in a computer system;

"electro-magnetic, acoustic, mechanical or other device" means any device or apparatus that is used or is capable of being used to intercept any function of a computer system, but does not include a hearing aid used to correct subnormal hearing of the user to not better than normal hearing;

"function" includes logic, control, arithmetic, deletion, storage and retrieval and communication or telecommunication to, from or within a computer system;

"intercept" includes listen to or record a function of a computer system, or acquire the substance, meaning or purport thereof.

The second provision deals with the use of data and states,

§ 430 (1.1) Every one commits mischief who wilfully

(a) destroys or alters data;

(b) renders data meaningless, useless or ineffective;

(c) obstructs, interrupts or interferes with the lawful use of data; or

(d) obstructs, interrupts or interferes with any person in the lawful use of data or denies access to data to any person who is entitled to access thereto.

(5) Every one who commits mischief in relation to data

(a) is guilty of an indictable offence and liable to imprisonment for a term not exceeding ten years; or

(b) is guilty of an offence punishable on summary conviction.

(5.1) Every one who wilfully does an act or wilfully omits to do an act that it is his duty to do, if that act or omission is likely to constitute mischief causing actual danger to life, or to constitute mischief in relation to property or data,

117. Id.
118. Id.
119. Id.
(a) is guilty of an indictable offence and liable to imprisonment for a term not exceeding five years; or
(b) is guilty of an offence punishable on summary conviction.\(^{120}\)

(6) No person commits mischief within the meaning of this section by reason only that
(a) he stops work as a result of the failure of his employer and himself to agree on any matter relating to his employment; or
(b) he stops work as a result of the failure of his employer and a bargaining agent acting on his behalf to agree on any matter relating to his employment; or
(c) he stops work as a result of his taking part in a combination of workmen or employees for their own reasonable protection as workmen or employees.\(^{121}\)

Two cases illustrative of Canada’s approach to the application of the criminal code to copyright situations are the following.

1. R. v. Stewart\(^{122}\)

The accused was hired to obtain the names and addresses of a hotel’s employees to facilitate a union organizing campaign.\(^{123}\) He contacted a security guard at the hotel in an attempt to obtain the information.\(^{124}\) The guard contacted police and the accused was convicted for counseling to commit fraud and theft.\(^{125}\)

The Supreme Court overturned the conviction, ruling that the information was a “pure intangible,” and therefore, not property that one could steal.\(^{126}\) Additionally, the Court held that purely intangible confidential information did not have a sufficiently precise definition.\(^{127}\)

Sections 342.1 and 430(1.1) of the Criminal Code recently limited the effect of this decision by expressly protecting computer data.\(^{128}\) However, the Stewart decision shows the Court’s preference to deal with this type of matter in the context of civil actions and not by the application of criminal law.\(^{129}\) The Court indicated that protection of confidential data could be better afforded by civil litigation, finding that only the immediate interests of the parties involved need consideration, and not the interests of society as a whole.\(^{130}\)

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120. Id.
122. 1 S.C.R. 963 (Can. 1988).
123. Id. at 978.
124. Id.
125. Id.
126. Stewart, 1 S.C.R. at 978.
127. Id.
128. Id.
129. Id.
130. Stewart, 1 S.C.R. at 977.
2. R. v. Forsythe\textsuperscript{131}

A private investigator was charged under section 342.1(1)(a) of the Criminal Code with fraudulently obtaining a computer service.\textsuperscript{132} The authorities found that the investigator possessed confidential computer printouts belonging to the police and that he sold the information to interested customers.\textsuperscript{133}

Nonetheless, the Court found the accused not guilty.\textsuperscript{134} In reaching this decision, the Court distinguished merely possessing the information from actually obtaining it.\textsuperscript{135} Therefore, the accused could not be convicted under the statute since he was not the person who obtained the confidential information.\textsuperscript{136} Interestingly, another person was also charged under section 342.1 and pled guilty.\textsuperscript{137} In rendering its decision, the Court stated that Parliament did not intend to make criminals of all those who came into possession of this confidential information.\textsuperscript{138}

E. TRADEMARKS

Trademark protection can be obtained for marks used in association with computer software. Specifically, the display of a mark on a computer screen during operation of a program has been held to be use of a trademark.

Until recently, it was sufficient to describe the wares in a registration as simply computer software or computer programs. The Canadian Intellectual Property Office, however, has recently announced that it will require a more detailed and particular statement of such wares, presumably by purpose or application:

1. Applied Digital Data Systems v. Ads Computer Services\textsuperscript{139}

Applied Digital brought an action for expungement of a registered trademark.\textsuperscript{140} They argued that because the trademark was not featured on the computer software or on its package but was only mentioned in licensing agreements, the registration should not be maintained.\textsuperscript{141} The Board held that the association between the marks

\textsuperscript{132} Id. at 321.
\textsuperscript{133} Id.
\textsuperscript{134} Id. at 323.
\textsuperscript{135} Forsythe, 137 A.R. at 322.
\textsuperscript{136} Id.
\textsuperscript{137} Id.
\textsuperscript{138} Id. at 322.
\textsuperscript{139} 19 C.P.R.3d 558 (Can. Trade Marks Senior Hearing Officer 1988).
\textsuperscript{140} Id. at 559.
\textsuperscript{141} Id. at 560.
and the product was obvious to anyone licensing the software. Therefore, this use was sufficient to reject Applied Digital's request for summary expungement of the trademark.

2. BMB Compuscience Canada Ltd. v. Bramalea Ltd.

In a trademark expungement proceeding, the Court found that the display of a trademark on a computer screen constituted use of the mark in relation to a software program. Thus, the applicant had used the mark prior to the respondent's application and the Court ordered the respondent's mark expunged from the registry.

III. GOVERNMENTAL FORMALITIES

There are no formalities required for the protection of software under contract and trade secret law, nor are there formalities required for protection of software under copyright law. Copyright in Canada comes into existence automatically whenever a copyrightable work is created in a country to which the benefit of the Canadian Copyright Act extends—which includes all member countries of the Berne Convention and other countries as well. Copyright registration may be obtained, but is not mandatory. The significance of copyright registration in Canada is solely evidentiary; it creates a presumption that copyright exists and is owned by the registered proprietor.

Along these lines registration of a trademark is desirable, but is not mandatory, as trademark rights can be acquired without registration. The advantages of trademark registration are acquisition rights throughout Canada and avoiding the need to prove acquired distinctiveness. For the protection of software under patent law (to the extent that this is possible), it is necessary to file a patent application and obtain a Canadian patent.

IV. MARKING

In general, Canadian courts will regard with favour such efforts to advise the public that exclusive rights in a computer program are claimed by their owner. The Canadian Patent Act contains no requirement for marking. Any published computer program should be marked, from its first publication, with the required marking under the Universal Copyright Convention, i.e., “© [year of publication] [name of proprietor].” While this is not mandatory under Canadian law, it constitutes notice of

142. Id.
143. Id. at 561.
145. Id. at 30.
146. Id.
a claim to copyright, and this can be important for the relief that may be obtained for copyright infringement in Canada, and it also preserves rights that may exist in Universal Copyright Convention countries.

Similarly, marking a product label that a trademark exists is not mandatory, but can be beneficial. The symbols ® and ™ are commonly used in Canada, but have no statutory significance. In addition, it can do no harm to use, where appropriate, general marking formats such as:

CONFIDENTIAL
PROPERTY OF ABC COMPANY.
ALL RIGHTS RESERVED

V. OWNERSHIP OF RIGHTS

Under Canadian copyright law, the owner of the copyright is normally the author of a copyrighted work. If the author did the work in the course of his employment, the owner is the employer. In trademark, patent and copyright law, a contract which expressly assigns rights to a person other than the creator vests those rights in that third party as a commissioned work. In the absence of such an express contractual provision, a court asked to determine ownership would examine the nature of the relationship between the parties and would consider: ownership of tools, control over work, risk of loss or chance of profit, and the degree of integration of the worker into the workings of the enterprise.

There is a presumption in Canadian patent law that an invention is owned by an employee unless there is an express agreement that assigns ownership to the employer or unless the employee was hired for the express purpose of inventing. When determining ownership the court will consider factors such as whether the employee was instructed to solve the problem that is the subject of the invention and whether the employee sought help from other employees.

VI. PROHIBITED ACTS

Patent law prohibits non-owners from making, using, or selling the patented subject matter. As discussed above, it protects machines programmed in a new and useful way. It also protects patent processes using as a process step the execution of a computer. Trade secret law prohibits the use and disclosure of a computer program, or any other confidential information. Trade secret law would prohibit the use of a program which is or incorporates a trade secret. Trademark law prohibits the use of a mark which is identical to or confusingly similar with a mark already registered or in use. There are no other important prohibited acts in addition to those summarized below.

Copyright law prohibits the following acts:
The reproduction of the work or any substantial part thereof in any material form whatever; if the work is unpublished, the publication of the work or any substantial part thereof; the making of any record . . . or other contrivance by means of which the work may be mechanically performed or delivered; the authorization of any such act; knowingly selling, letting for hire, by way of trade exposing or offering for sale or trade or hire, distributing for the purposes of trade, by way of trade exhibiting in public or importing for sale or hire into Canada any work that infringes copyright or would infringe copyright if it had been made within Canada.

Copyright law does not prohibit "fair dealing with any work for the purposes of private study, research, criticism, review or newspaper summary." The Copyright Act allows a person who owns a copy of a program to make a second copy, including modification or translation into another computer language for compatibility with a particular computer or for purposes of making a back-up.

Under patent law, infringement is considered as a question of substance, and is not limited to the literal adoption of a program or programming step as defined in a patent claim. Copyright law also regards copyright infringement as a question of substance, and therefore would extend to modifications, alterations or adaptations which nevertheless preserve the "substance" of the original work. Trademark infringement, when based on an allegation the marks are confusingly similar, is regarded as a question of whether the average consumer, with imperfect recollection, would be misled as to the source of the wares.

VII. PROPOSED LEGISLATION

In December, 1994, the Canadian government announced that further changes to the Copyright Act would be introduced for consideration by the Federal Parliament. These changes enlarge the circumstances in which fair dealing may be raised as a defence to copyright infringement. The Government stated that new exceptions would be granted to non-profit educational institutions, libraries, archives, museums and for people with perceptual disability. Although these proposals have the potential for affecting the owners of rights in computer software, the extent of any impact is unknown at this time. As of March, 1996, no formal proposals had been introduced to the Federal Parliament.

The Government of Canada has also appointed an Information Highway Advisory Council to recommend changes to legislation required

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147. Copyright Act § 17(2) (Can.).
149. Telephone Interview with Kathleen Bracci, Copyright and Industrial Design Branch, Industry Canada (March 8, 1996).
to accommodate the development of the Information Highway and multimedia products. The Council released a number of recommendations and these are reproduced in the Appendix, infra, as published in the Final Report of the Information Highway Advisory Council.

VIII. PRACTICE AND ENFORCEMENT

Canadian law does not provide special measures to facilitate the tracing of infringements. In Canada, as in most legal systems derived originally from the English legal system, it is possible to obtain various types of equitable relief. These include the so-called “Anton Piller” order, which is an ex parte order permitting a plaintiff to enter the premises of a defendant and inspect and remove documents. Such an order is only granted in very unusual cases. A plaintiff must demonstrate a very strong prima facie case, very serious actual or potential damages, and clear evidence that the defendants have documents or things that might well be destroyed or removed if the order were not made. There is an extensive and well understood body of Commonwealth jurisprudence relating to such orders, the circumstances in which they will be granted, and the manner in which they will be enforced.

It is possible to obtain an interlocutory injunction restraining a defendant from continuing the copyright infringement or other unlawful acts until the trial of the action has been held and judgment has been rendered. In order to obtain such an injunction it is necessary to commence an action and satisfy the court by affidavit evidence that the plaintiff has a reasonable case and is likely to be irreparably harmed if the injunction is not granted.

At the trial of an action, a plaintiff may obtain damages and/or an accounting of profits, delivery up or destruction of the defendant’s infringing goods and restoration of at least a portion of its legal expenses in the action.

Enforcement of rights in computer software is also possible by using criminal sanctions set out in the Criminal Code and the Copyright Act.

As stated above, Section 342.1 of the Criminal Code prohibits fraudulently obtaining interception or use of a computer system. A person found guilty under this section can receive up to ten years imprisonment. Similarity, a person found guilty under section 430 of mischief in relation to data can receive a sentence of up to ten years imprisonment.

The Copyright Act also provides criminal sanctions. Section 42(1) states:

§ 42(1) Every person who knowingly

(a) makes for sale or hire any infringing copy of a work in which copyright subsists,
(b) sells or lets for hire or by way of trade exposes or offers for sale or hire any infringing copy of any work in which copyright subsists,

(c) distributes infringing copies of any work in which copyright subsists either for the purpose of trade or to such an extent as to affect prejudicially the owner of the copyright,

(d) by way of trade exhibits in public any infringing copy of any work in which copyright subsists, or

(e) imports for sale or hire into Canada any infringing copy of any work in which copyright subsists

is guilty of an offence and liable

(f) on summary conviction, to a fine not exceeding twenty-five thousand dollars or to imprisonment for a term not exceeding six months or to both, or

(g) on conviction on indictment, to a fine not exceeding one million dollars or to imprisonment for a term not exceeding five years or to both.

Private individuals in Canada may prosecute criminal charges. Thus, a person could enforce the criminal provisions of the Copyright Act or the Criminal Code. The Attorney-General in each province has the right to intervene and then to prosecute or stay any charges initiated by private prosecution. Although the Attorney-General must review decisions on a case-by-case basis, he is granted great discretion and a Court will only overturn the Attorney-General's decision to stay a private prosecution if there is flagrant impropriety. If the Attorney-General chooses not to intervene, the Court's permission is required to proceed by way of indictment, however no permission is needed if the prosecution proceeds by way of summary conviction. It should be noted that in Canadian criminal matters the accused has the right to receive any relevant information in the possession of the prosecutor, but the prosecutor has no right to the discovery of the accused.
APPENDIX

RECOMMENDATIONS - COPYRIGHT SUBCOMMITTEE

CATEGORIES OF WORKS

The current categories of works contained in the Copyright Act sufficiently identify works produced and used in a digital environment and should not be amended or eliminated.

USE OF WORKS

Communication to the Public by Telecommunication:

The Council is of the view that the right embraces the communication to the public of material regardless of whether the material is made available on an on-demand basis. If further consideration establishes that this is not clear, the Copyright Act should be amended to state clearly that a communication offered to the public by means of telecommunications is subject to the authorization of the copyright owner, even where such communication is made on-demand to separate individual users.

Rental Right:

The statutory language of the Copyright Act should be tightened to impede or prohibit hidden and unauthorized acts of commercial rental in the case of computer programs and sound recordings.

Copyright Protection in General:

Provisions should be introduced for statutory damages based on the United States model.

BROWSING

It should be left to the copyright owner to determine whether and when browsing should be permitted on the Information Highway; the owners should identify what part of their work is appropriate for browsing.

The Copyright Act should be amended to provide a definition of "browse" along the following lines:

"Browse" means a temporary materialization of a work on a video screen, television monitor or similar device, or the performance of the audio portion of such a work on a speaker or a similar device by a user, but does not include the making of a permanent reproduction of the work in any material form.

The Copyright Act should provide a definition of a "publicly available work."

FAIR DEALING

The section of the Copyright Act on fair dealing should be clarified. Specific criteria and guidelines as to the scope of the fair dealing exception should be provided in the Copyright Act, including explicit clarification that fair dealing applies to the making of an electronic copy of a work and the storage and transmission of that copy by electronic means.

MORAL RIGHTS
The moral right of integrity should be maintained.
The presumption of prejudice should be brought back to its original intention, namely where modification is that of an original.
The legal framework governing copyright should ensure, rather than curtail, the development of systems to monitor the uses of copyright on the information Highway.
The possibility of affording certain works a regime of protection limited only to moral rights should not be considered.

**Crown Copyright**
Crown Copyright should be maintained.
The Crown in Right of Canada should, as a rule, place federal government information and data in the public domain.
Where Crown copyright is asserted for generating revenue, licensing should be based on the principles of non-exclusively and the recovery of no more than the marginal costs incurred in the reproduction of the information or data.
In the area of Crown copyright, the federal government should create and maintain an inventory of Crown works covered by intellectual property that is of potential interest to the learning community and the information production sector at large; negotiate nonexclusive licenses for their use on the basis of costs recovery for digitization, processing and distribution, and invite provincial and territorial governments to provide similar services.

**DISTRIBUTION RIGHT**
An electronic distribution right should not be introduced in the Copyright Act.

**Ownership**
Given that an electronic distribution right is not recommended, it is further recommended that the “first sale doctrine” not be introduced as it is merely a necessary adjunct to the right of distribution.

**Administration**

**Enforcement**
The federal government should assist in the development and standardization of user-acceptable ways to track use of protected works.
The federal government should assist in the development and use of “identifiers” to be included in the distribution of protected works in a digital format to make it easier to trace copyright ownership and unauthorized use of protected materials.
The federal government should take an active role, in partnership with industry and the creator and user communities, in a public education campaign to better inform users and creators about the use of copyright.
The federal government should consider the full range of policy instruments at its disposal to ensure effective copyright protection in order to support the creation of new Canadian works.
Tampering or by-passing, for the purposes of infringement, of any kind of encryption or copyguards should be made a criminal offense under the Copyright Act.

Rights Clearance:
The federal government should be encourage the industry and creator and user communities in the creation of administrative systems to streamline the clearance of rights for use of works in a digital medium. Compulsory licensing should not be considered in the commercial marketplace.

Public Education
Users and creators should assume greater responsibility for informing themselves on copyright and the application of various rights in a digital world.

The federal government should lead by example as both a model "user" and "creator."

The federal government should take an active role, in partnership with industry and with the creator and user communities in a public education campaign to better inform both users and creators about the use of copyright.

In any public education campaign undertaken by the government, the learning community should be specifically included to better inform creators and users about copyright and the responsible use of creative works in a digital world.

The federal government should advise provinces, territories, and faculties of education of their responsibility to ensure that students and future educators have an adequate understanding of copyright principles and legislation. Corporate and private training associations should also be encouraged to provide adequate training in copyright principles and legislation.

Bulletin Board System Operator Liability
No owner or operator of bulletin board systems should be liable for copyright infringement if:

a. they did not have actual or constructive knowledge that the material infringed copyright; and

b. they acted reasonably to limit potential abuses.