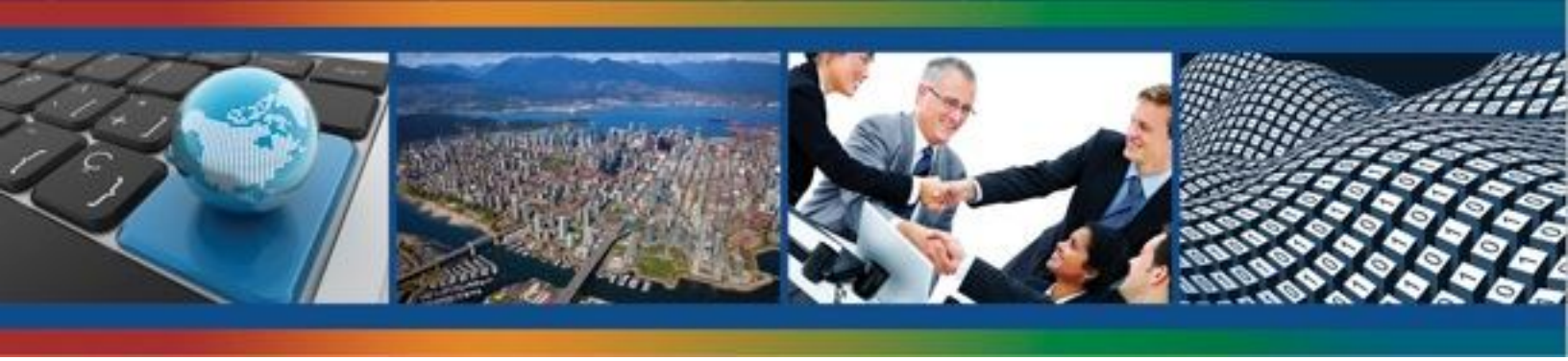

CANADIAN GEOSPATIAL DATA INFRASTRUCTURE
INFORMATION PRODUCT 19e

Intellectual Property Law Backgrounder

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Abstract

The IP Law Backgrounder outlines the three main areas of Canadian intellectual property: copyright, patent and trademark. Its purpose is to define each of these areas for stewards of geospatial data and to focus on the relevance of each to protecting geospatial data, information and products.

The backgrounder first explains the difficulties in protecting confidential information under civil law, beginning with the assertion that geospatial data is not inherently property. Protection of such data is difficult, if not impossible, when accessed by parties with no relationship to the data source and who are not bound by any contract.

The paper also points to the trend of data compilers who seek to protect important information in the form of data compilations. The most commonly used form of protection is copyright law.

1. Introduction

This document provides an overview of Canadian intellectual property (IP) law with a focus on its relevance to protecting Geospatial Data, information and products. "Geospatial data" is understood as raw data, such as geographic coordinates. "Geographic information" (GI) is understood as geographic data placed in context (for example, data about the location of mineral resources). "Geospatial data products" is understood to mean the form in which the data is expressed, and can include databases, maps, charts, photographs or other documents or products.

IP is generally understood as having three main areas: copyright, patent and trademark. Other categories include industrial design law, the protection of integrated circuit topographies, and the protection of plant varieties. Confidential information or trade secrets are often considered to be a form of IP protected at common or civil law, or in equity. The focus in this paper is on confidential information, copyright, trademarks and patents, although copyright is the predominant basis for the protection of geographic data and related information products.

2. The Law of Confidential Information

In appropriate circumstances, data or information can be protected as confidential information (CI). CI is protected under common or civil law, and not under statute. To qualify for protection the information must be confidential, it must have value owing to the fact that it is confidential, and the party claiming rights in the information must take appropriate measures to ensure its confidentiality.[1] These may include physical controls on the data (keeping it in locked cabinets, or a locked room), encryption of digital data, limiting access only to key personnel, having confidentiality agreements in place, and so on. If CI is shared with a potential business partner or investor, for example, a confidentiality agreement would be used to protect the information from use or disclosure by the party with whom it is shared.

[1] Daniel Gervais and Elizabeth Judge, Intellectual Property: The Law in Canada (Toronto: Thompson Carwell, 2005), at p. 495. See also *Agreement Establishing the World Trade Organization , Annex 1 C: Agreement on Trade-Related Aspects of Intellectual Property Rights*, 15 April 1994, 1869 U.N.T.S. 299, online: WTO <http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm>, art. 39(2).

CI is not considered to be "property" because someone else can acquire the information without depriving the original "owner" of that information.[2] It loses its commercial value when confidentiality is lost. Because the protection of CI often depends on the existence of a relationship between the parties (fiduciary, employment), or the existence of a contract, it can be difficult to protect the data once it has made its way into the hands of parties with no relationship with the data source and who are not bound by any contract limiting the use of the data. If CI becomes sufficiently public, it can no longer be protected as such. Protecting data through the laws of confidential information is only appropriate in circumstances where access to and use of the data is limited and strictly controlled. It is not appropriate where the objective is to licence the use of the data to multiple parties.

In some cases, governments or their agencies possess confidential information belonging to private sector organizations. This arises where this information has been provided so as to comply with regulatory requirements. Governments must protect this information from disclosure under access to information legislation.[3]

Given the limits of the law of confidential information for protecting data, it is not surprising that compilers of important collections of data have sought a property-based form of protection. Where a property right can be asserted in the collection of data the right is much easier to enforce against any who seek to use the data. In Canada, the most significant area of IP law for protecting compilations of data is copyright law.

3. Copyright Law

Copyright recognizes and protects rights in every original "literary, dramatic, musical and artistic work".[4] These categories are broadly defined.[5] Works can include compilations,[6] and compilations of data are also capable of protection.[7] Copyright law can also be used to protect works that represent data, for example: memoranda, books, tables, maps, charts, plans, photographs, or drawings.

[2] *R. v. Stewart*, [1988] 1 S.C.R. 963.
[3] For example, under the *Access to Information Act*, R.S.C. 1985, c. A-1, the head of a government institution may not disclose the trade secrets or confidential information of a third party (s. 20(1)).
[4] *Copyright Act*, R.S.C. 1985, c. C-42, s. 5(1).
[5] For example, "literary work" is defined to include tables and computer programs (*Copyright Act*, s. 2). An "artistic work" includes maps, charts and plans (*Copyright Act*, s. 2).
[6] *Copyright Act*, *s.* 2, definition of "every original literary, dramatic, musical and artistic work". A compilation may be of different types of works. For example, a multimedia work might contain text (literary), photos (artistic), video clips (dramatic), and music (musical). In a compilation of different works, there may be a distinct copyright in the compilation, and separate copyrights in each of the works that makes up the compilation.
[7] *Copyright Act*, s. 2, definition of "compilation".

Copyright arises automatically with the creation of a work. There is no registration requirement nor is there a requirement to claim copyright in a work by marking it with a ©. In Canada, works are protected, in most cases, for the life of the author and a further 50 years.[8] Copyright law is national in scope – each country has its own copyright law which applies within its borders. International treaties provide for national treatment and reciprocity. This means that copyrights owned by Canadians are protected in other countries according to those countries' national laws. Canada does the same for the works of nationals of other treaty countries.

Typically the author of a work is its first owner and the author also has moral rights in the work.[9] Some important exceptions to this general rule exist. Copyright in works created in the course of employment is generally owned by the employer.[10] Similarly, Her Majesty is the owner of copyright in works "prepared or published by or under the direction or control of Her Majesty or any government department."[11] These default rules of ownership can be altered by contract between the parties.

To be protected under copyright law a work must be fixed. In other words, it must be "expressed to some extent at least in some material form and having a more or less permanent endurance."[12] It must also be original.[13]

The fixation requirement is based on judge-made law. It may reflect the concern of courts to protect works only in those cases where there is some concrete evidence of the existence and boundaries of the work. The fixation requirement may also be linked to authorship. Copyright law does not protect ideas; it protects only the expression of ideas.[14] Fixation is related to this act of expression; it requires a more permanent kind of expression (an act of authorship) than, for example, mere oral statements.[15]

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[8] The term of protection for copyright in the U.S. and in Europe has been extended to life of the author plus 70 years. A similar term extension in Canada is not part of the current copyright reform bill before Parliament. (Bill C-32, *An Act to amend the Copyright Act*, 3d Sess., 40th Parl., 2010, [*Bill C-32*]). Crown copyright lasts for fifty years from the end of the year in which the work was first published (*Copyright Act*, s. 12). In many cases, copyright in photographs lasts for fifty years from the end of the calendar year in which the photograph was created. If Bill C-32 is passed, the term of protection for photographs will be harmonized with that for other works.

[9] Moral rights are provided for in sections 14.1, 14.2, 28.1 and 28.2 of the *Copyright Act*. Moral rights may not be assigned (sold or transferred), as they seek to protect the relationship between an author and his or her work. The moral rights protected in Canadian law are the right to the integrity of the work and the right to be associated with the work (as author, under one's name, a pseudonym or anonymously).

[10] *Copyright Act*, s. 13(3). Note that an independent contractor (as opposed to an employee) would retain copyright in their work, subject to any contrary contractual provisions.

[11] Copyright Act, s. 12.

[12] *Canadian Admiral Corp. v. Rediffusion*, [1954] Ex. C.R. 382, 20 C.P.R. 75, at 396 (Ex.C.R.).

[13] The requirement of originality is found in s. 5 of the *Copyright Act*.

[14] For example, art 9(2) of TRIPS, *supra* note 1, provides that copyright does not extend to "ideas, procedures, methods of operation or mathematical concepts".

[15] Canadian courts have found that there is no copyright in oral statements, but a journalist who records oral statements will have a copyright in the resultant work that expresses those statements: *Gould Estates v. Stoddart*

The *Copyright Act* will protect only original works. An original work has been defined by the Supreme Court of Canada as meeting two criteria. First, the work must not be copied. Even if it takes a great deal of skill and judgment to produce the copy, a mere copy cannot be protected.[16] Second, the work must be the result of an exercise of skill and judgment on the part of the author.[17] Skill is defined as "the use of one's knowledge, developed aptitude or practised ability in producing the work."[18] Judgment is "the use of one's capacity for discernment or ability to form an opinion or evaluation by comparing different possible options in producing the work."[19] The skill and judgment involved in the creation of the work "must not be so trivial that it could be characterized as a purely mechanical exercise".[20] Thus automated processes to harvest, sort or generate data may not meet the requirements of originality.[21] Mere hard work or the investment of money alone are not sufficient to make a work original. A work must emanate from an author, and be the result of an exercise of that author's skill and judgment.

The concept of authorship is implicit as well in the "skill and judgment" standard set out by the Supreme Court of Canada in *CCH Canadian*. This is extremely important. In a recent decision, the High Court of Australia found that although a digital telephone directory required a substantial investment of time and energy to compile, update, verify and organize, it was impossible to identify an "author" for this work. The court noted that a large part of the work was automated, and other tasks were carried out by a variety of different workers. The end result was a product that could not be linked to an author, and that could not, therefore, be original.[22]

The originality requirement may also be linked to the proposition that copyright law does not protect facts.[23] The basis for this proposition may vary from the view that facts "do not owe their origin to an act of authorship,"[24] (see the discussion of authorship below) or it may be based on public policy grounds (a monopoly on facts would stifle expression and innovation).[25]

Although facts may not be copyrighted, it is accepted that there may be copyright in an original expression of facts. Thus a factual account in a newspaper would be an expression of fact that is

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Publishing Co., (1998), 39 O.R. (3d) 545, 80 C.P.R. (3d) 161 (Ont. C.A.), leave to appeal refused (1999), 82 C.P.R. (3d) vi (S.C.C.); *Hager v. ECW Press Ltd.*, [1999] 2 F.C. 287, 85 C.P.R. (3d) 289 (F.C.T.D.).

[16] *CCH Canadian Ltd. v. Law Society of Upper Canada*, 2004 SCC 13, [2004] 1 S.C.R. 339, at para 15. Thus, for example, a court in the U.S. found that there is no copyright in photographs of paintings taken by professional photographers to produce images that are of a sufficient quality for commercial purposes because these works are copies of the original. See: *Bridgeman Art Library Ltd. v. Corel Corp*. 36 F.Supp. 2d 191 (S.D.N.Y. 1999).

[17] *CCH Canadian*, *ibid.*, at para 16.

[18] *Ibid.*, at para 16.

[19] *Ibid.*, at para 16

[20] *Ibid.*, at paras 15-16.

[21] *Telstra Corporation Limited v. Phone Directories Company Pty Ltd.*, [2010] FCA 44, http://www.austlii.edu.au/au/cases/cth/FCA/2010/44.html.

[22] *Telstra*, *ibid.*, at para 344.

[23] In *CCH Canadian*, supra note 16, at para 22, the Supreme Court of Canada confirmed that copyright protection "does not extend to facts or ideas but is limited to the expression of ideas."

[24] Feist Publications, Inc. v. Rural Telephone Service Company, Inc., 499 U.S. 340 (1991), at 347.

[25] See, for example: T. Scassa, ""Original Facts: Skill, Judgment and the Public Domain", (2006) 51 McGill L.J. 253.

protected as a literary work. Where facts are compiled, as in a list, directory or database, this may be protected as a compilation of facts (or data).[26] This recognizes that the act of compiling the facts may be a sufficient act of authorship to give rise to copyright. However, for this to be the case, either the selection or the arrangement of the facts must meet the test for originality. This means that the selection or arrangement must not be copied, and must be the result of an exercise of skill and judgment. The underlying facts themselves will never be protected by copyright law, but the taking of the whole or a substantial part of an original selection or arrangement of facts will violate copyright law.[27] This makes the protection available in copyright law for compilations of data rather "thin".[28] It is conceivable that a court might find that some selections or arrangements of data are not sufficiently original to give rise to copyright protection.[29] As a result, the copyright status of some compilations of data is difficult to predict. The creator of a compilation of data will only know if the selection or arrangement meets the originality threshold following a court decision. It will also not be clear in advance of any court decision what will constitute the taking of a substantial part of the selection or arrangement. Nevertheless, the compiler of data may assert copyright in their compilation even if the exact limits and boundaries of that copyright are unknown.

The fate of facts in other kinds of copyright works is similar, although the more expressive the work the less of an issue this becomes.[30] For example, the facts in a history book are not protected by copyright, but the degree of original expression involved in writing the book and presenting the facts is such that any potential competitor could not easily use the first work as a springboard to a competing work. They might be able to rely on the same facts, but they would have to write their own account.

Where information is expressed in a photograph, the same principles apply. Many different photographers could capture images of the same landscape feature, for example, with the result that each produces remarkably similar photographs. There is no copyright violation so long as

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[26] The *Copyright Act* expressly recognizes that a compilation may be "a work resulting from the selection or arrangement of data." (Definition of "compilation, s. 2).

[27] Gervais and Judge, *supra* note 1, at p. 37.

[28] This is the term used by O'Connor J. in *Feist*, *supra* note 24, at 349. Note that in *Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc.*, 945 F.2d 509, 515 (2d Cir. 1991), the U.S. 2nd Circuit Court of Appeals stated that although "the 'copyright in a factual compilation is thin,' we do not believe it is anorexic."

[29] This was the case in *Tele-Direct (Publications) Inc. v. American Business Information Inc*., (1996), 74 C.P.R. (3d) 72 (T.D.), aff'd [1998] 2 F.C. 22; (1997), 76 C.P.R. (3d) 296 (F.C.A.), leave to appeal to S.C.C. denied, [1998] 1 S.C.R. xv, where the Federal Court of Appeal found that there was no copyright in a compilation of yellow pages listings.

[30] In two U.S. cases, courts found that "facts" regarding characters and events in works of fiction were part of the work, such that a compilation of those facts could violate the copyright in the original work. See: *Castle Rock Entertainment, Inc. v. Carol Publishing Group, Inc.*, 150 F. 3d 132, <http://www.law.cornell.edu/copyright/cases/150_F3d_132.htm>, (2nd Cir. 1998); *Warner Bros. Entertainment Inc. v. RDR Books*, 575 F. Supp. 2d 513, <http://scholar.google.ca/scholar_case?case=13852164224811081270&hl=en&as_sdt=2&as_vis=1&oi=scholar> , (S.D.N.Y. 2008). It would be possible for Canadian courts to take a similar approach. See, generally: T. Scassa, "Copyright Reform and Fact-Based Works", in M. Geist, ed. *From "Radical Extremism" to "Balanced Copyright": Canadian Copyright and the Digital Agenda*, (Irwin Law, 2010) , pp. 571-597.

each photo is not a copy, and is the result of an exercise in skill and judgment on the part of the photographer. The landscape feature is a "fact"– only the original expression of that fact will be protected. Geographic information expressed in photographs is protected to the extent that the photograph may not be copied either in its entirety or in substantial part.

Maps have long been protected by copyright law; they are currently considered to be artistic works.[31] Maps are a graphic representation of geographic data and other related information. Because of the visual nature of a map and the choices necessary on the part of the map maker to express that data, it can be difficult to separate the data expressed in the map from that expression. In other words, it can be difficult to tell whether a competitor has copied the map itself, or has merely mined the map for its data and expressed it in another map whose similarities are due less to the copying of the expression than to the use of the same data. Nevertheless, where there is evidence of copying, courts will often find infringement.[32]

Copyright is infringed when anyone does one of the acts that only the owner of copyright may do, without the copyright owner's permission. The economic rights of the owner of copyright include the right to reproduce all or a substantial part of the work, and to communicate the work to the public by telecommunication (which includes disseminating the work over the internet).[33] Where infringement is found, a court may impose a variety of remedies including damages, punitive damages, an injunction, delivery up of infringing articles, or an accounting of profits. The *Copyright Act* also provides for statutory damages.[34]

The *Copyright Act* provides for a number of exceptions to infringement. The fair dealing exceptions apply where works are used for specific purposes: criticism or review, research or private study, or news reporting.[35] The use of the work must be for one of these purposes, and it must be fair. The Supreme Court of Canada has established a set of criteria for assessing the fairness of the use of a work.[36] Fair dealing defences have traditionally been interpreted in a narrow manner in Canada, although the Supreme Court of Canada has more recently signalled a need to give these exceptions a generous interpretation in order to balance owners' rights with

[31] The *Copyright Act*, s. 2, currently defines "artistic work" to include maps, charts and plans. These works were formerly considered to be literary works, but in practical terms, they have always been considered to be protected by copyright law.

[32] See, for example: Weetman (c.o.b. Beta Digital Mapping) v. Baldwin, 2001 BCPC 292; R. v. Allen 2006 ABPC 115.

[33] The full slate of economic rights of copyright owners is set out in s. 3(1) of the *Copyright Act*, It should be noted that the economic rights include the right to authorize any of the acts that the owner has the sole right to carry out.

[34] These are fixed amounts for damages that do not depend on the plaintiff being able to prove specific losses. Statutory damages are provided for in s. 38.1 of the *Copyright Act*.

[35] The fair dealing provisions are found in s. 29 (research and private study), 29.1 (criticism or review) and 29.2 (news reporting) of the *Copyright Act*.

[36] These are found in *CCH Canadian*, *supra* note 16, at para 53. The criteria to be considered are: "(1) the purpose of the dealing; (2) the character of the dealing; (3) the amount of the dealing; (4) alternatives to the dealing; (5) the nature of the work; and (6) the effect of the dealing on the work."

other public policy purposes.[37] Other very specific and narrowly crafted exceptions exist in the *Copyright Act* for uses by educational institutions, archives and libraries, persons with perceptual disabilities, and so on.[38] It should be noted that if the current copyright bill is passed, the fair dealing categories will be expanded to include "education", and there will be additional exceptions for user generated works and other private uses of works.[39]

Owners of copyrights may assign (sell or transfer) their rights in whole or in part. For example, they may assign the economic right of reproduction, while retaining other rights, or they may assign the Canadian reproduction rights, while retaining reproduction rights elsewhere in the world. Owners may also licence their works. A licence is essentially a contract that permits certain acts in relation to the work that would otherwise be infringing. A licence may be exclusive (granted only to one party) or non-exclusive (granted to more than one party).

A key challenge to asserting copyright in the GI context is that so much GI is compiled data. Other types of works (photos, maps, charts) are easier to protect as it is easier to determine the scope and subsistence of copyright. It is much easier to licence use of a work if it is clearly a protected work, and if the scope of protection is also clear. With compilations of data it is necessary to consider: 1) whether copyright actually subsists in the work and 2) the scope or extent of IP protection.

[37] The balanced approach is called for in *CCH Canadian*, *ibid.* Note that in *Alberta (Education) v. Access Copyright*, 2010 FCA 198, the Federal Court of Appeal upheld a Copyright Board decision that copies made by teachers for instructional purposes did not constitute fair dealing for the purpose of "private study". In *Society of Composers, Authors and Music Publishers of Canada v. Bell Canada*, 2010 FCA 123, the same court found that previewing 30-second extracts of musical work prior to purchase was fair dealing for the purposes of research.

[38] These exceptions are found in ss. 29.4-32 of the *Copyright Act*.

[39] Bill C-32, *supra* note 8. These exceptions can be found in s. 21 (amending s. 29 to include "education" as a purpose for fair dealing), and s. 22 (adding s. 29.21 as an exception for non-commercial user-generated content, s. 29.22 as an exception for reproduction for private purposes, s. 29.23 as an exception for home recording of television programs for later viewing; and 29.24 as an exception for the making of backup copies).

The following table summarizes the effects of copyright on different types of "products".

Type of "Product"	Category of Work	Authorship	Originality
Fact	Not protected	Facts are not authored	Not capable of being original
Compilation of fact	Compilation – literary work	Author is compiler – but if compilation is result of a largely automated process and many employees, there may be no "author"	Must reflect an original *selection* or *arrangement* of data
Photograph	Artistic work	Author is the photographer – in the case of photographs taken in an automated manner (e.g. satellite photos, aerial surveillance) the authorship could be challenged.	Can be original if there is an exercise of skill or judgment on the part of an author and the photo is not a copy of another work
Directory, manual, text	Literary work	Author is the person who wrote the document	Can be original if there is an exercise of skill or judgment and the work is not a copy of another work

4. Trademark Law

Trademarks are marks used in commercial contexts as indicators of the source of wares or services. Trademarks may be registered or unregistered. Unregistered marks arise at common law by use.[40] Registered trademarks are registered and protected under the *Trade-marks Act*. The *Trade-marks Act* also permits the registration of certification marks, a sub-category of trademarks. Certification marks can be used on wares or services originating with a variety of different sources; they serve to indicate that those wares or services have met a particular standard or are of a particular kind or quality. [41] The *Trade-marks Act* also offers the possibility to public authorities to obtain "official marks".[42] These function in a manner similar to registered trademarks, although their protection is more substantial. They do not need to be examined and cannot be opposed. They also do not need to be renewed.[43] A public authority is an entity that is under government control and acts for the public benefit.[44]

[40] These marks are protected at common or civil law or under s. 7(b) of the *Trade-marks Act*, R.S.C. 1985, c. T-13.
[41] *Trademarks Act*, ss. 23-25. See discussion of certification marks in Scassa, *Canadian Trademark Law*, *ibid*. at 58-60.
[42] Official marks are provided for in s. 9(1)(*n*)(iii) of the *Trade-marks Act*.
[43] See, generally, T. Scassa, *Canadian Trademark Law*, (Toronto: LexisNexis/Butterworths, 2010), at pp. 156-168.
[44] Ontario Association of Architects v. Association of Architectural Technologists, [2003] 1 F.C. 331, at para 52.

Trademarks do not protect the actual wares to which they are affixed. They serve only as an indicator of source or quality, and to prevent confusion in the marketplace as to this source.[45] In the GI context, trademarks can be affixed to sets of data, maps or charts, for example, to show that they come from a particular source. A third party can be licensed to use that mark, or can be prevented from using the mark if the trademark holder does not wish to be associated with any potentially inferior or problematic downstream products or services that rely on the data.

5. Patent Law

Canada's *Patent Act*[46] provides for patents to be granted to inventions. A compilation of data is not an invention, nor are maps, charts or other such documents. However, computer software may be protected by a patent in appropriate circumstances, and recent case law may have the effect of broadening these circumstances.[47] The same case law suggests that business methods may be patentable in Canada.[48] Thus while data itself may not be protected by patent law, it is possible that the software or interface through which it is provided may be patent protected. Patent protection must be sought through the rigorous process set out in the Act. An invention must be new, useful and non-obvious to be patented. A patent, once granted, is valid for 20 years from the date of the deposit of the patent application.

[45] Scassa, *Canadian Trademark Law*, *supra* note 42, at 55.
[46] R.S.C. 1985, c. P-4.
[47] In *Amazon.com, Inc. v. Canada (Attorney General)*, 2010 FC 1011, the Federal Court took a more open approach to the patentability of software. The case is currently on appeal.
[48] In *Amazon.com*, *ibid*., the court also ruled that business methods were patentable in Canada if they met the other requirements for patentability such as novelty, non-obviousness and utility.