CLICK AND COPY: BREACH OF ONLINE LICENCE AGREEMENTS AND COPYRIGHT INFRINGEMENT*

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ABSTRACT

The enforceability of click-through software licences and agreements for online software-based services is critical within the information technology industry. Software vendors and cloud-computing service providers require certainty that the licence terms governing these products will be enforceable. In other words, vendors require certainty that, if there is a breach by a user, the law will provide a remedy, under the law of either contract or copyright, or both. When does a breach of a licence or breach of online terms of use constitute not only a contractual breach but also an infringement of copyright in the software? The outcome of this question affects whether a vendor or provider would be able to access the infringement remedies under part IV of the Copyright Act, including injunction, damages, accounts, delivery up, and statutory damages. By reviewing some of the recent case law in this area, this article examines the intersection of copyright and contract law in the context of clickthrough software licences and online terms of use, specifically when a breach of such terms constitutes copyright infringement, giving rise to remedies under the Copyright Act, and when a breach is merely a breach, giving rise to remedies and potential damage awards under contract law.

RÉSUMÉ

Le caractère exécutoire des licences et des conventions d'achat au clic de services informatiques en ligne revêt une grande importance pour l'industrie des technologies de l'information. Les distributeurs de logiciels et les fournisseurs de services infonuagiques demandent la certitude que les licences régissant ces produits seront exécutoires. En d'autres termes, ils doivent être certains que, si un utilisateur commet une infraction, des recours seront disponibles en vertu du droit en matière d'obligations contractuelles ou du droit d'auteur, ou des deux. À quel moment la violation d'une licence ou des conditions d'utilisation en ligne constitue-t-elle non seulement un manquement aux obligations contractuelles, mais aussi une violation du droit d'auteur du logiciel? L'exercice par les distributeurs ou les fournisseurs des recours prévus à la Partie IV de la *Loi sur le droit d'auteur*, y compris les injonctions,

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les dommages-intérêts, la reddition de compte et les remises, dépend de la réponse à cette question. Passant en revue quelques-unes des plus récentes affaires ayant fait jurisprudence dans ce domaine, l'auteur examine le point d'intersection du droit en matière d'obligations contractuelles et du droit d'auteur dans le contexte des licences au clic et des conditions d'utilisation en ligne. Il s'attarde plus particulièrement sur le moment où la violation de ces conditions constitue une violation du droit d'auteur, donnant lieu à l'exercice des recours prévus par la *Loi sur le droit d'auteur*, et sur le moment où la violation donne simplement lieu aux recours et à l'attribution potentielle de dommages-intérêts prévus par le droit en matière d'obligations contractuelles.

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1.0 INTRODUCTION

The enforceability of click-through software licences and agreements for online software-based services is critical within the information technology industry, a sector that touches many aspects of the Canadian economy, from consumer products and entertainment to health care, oilfield services, navigation, shipping and logistics, and everything in between. Software vendors and providers require certainty—whether licensing software for download, providing "cloud-computing"

services, or launching other web-based software services—that the licence terms governing these products will be enforceable. In other words, they require certainty that, if there is a breach by a user, the law will provide a remedy, under the law of either contract or copyright, or both.

When does a breach of a licence or online terms of use constitute not only a contractual breach but also an infringement of copyright in the software? The answer to this question affects whether a vendor or provider would be able to access the infringement remedies under part IV of the *Copyright Act*, including injunction, damages, accounts, delivery up, and statutory damages. By reviewing some of the recent case law in this area, this article examines the intersection of copyright and contract law in the context of click-through software licences and online terms of use, specifically when a breach of such terms constitutes copyright infringement, giving rise to remedies under the *Copyright Act*, and when a breach is merely a breach, giving rise to remedies and potential damage awards under contract law.

2.0 BACKGROUND

2.1 Copyright

Copyright is created by statute. In Canada, the scope of the right itself and all remedies that a copyright owner has available for infringement of those rights must be found in the *Copyright Act*.²

Section 3 of the Act describes the rights embodied within "copyright." "Copyright" means the sole right to produce or reproduce a work in any material form, to perform a work in public, or to publish an unpublished work. According to the Supreme Court of Canada, "[t]his definition of 'copyright' is exhaustive." The other rights, set out in section 3(1)(a) through (i) (and adding (j) with the *Copyright Modernization Act*³) are illustrative of that basic structure of copyright.⁴

This article views section 3 from the perspective of a software vendor or service provider, and thus the "work" comprises a computer program (including a desktop or mobile application or web-based access to software). Cloud-computing services, software-as-a-service, or other web-based software services often bundle access to software with other services, such as data-hosting, data synchronization, and various support services. For the purposes of looking at the scope of "copyright" within the Act, the "work" can therefore also comprise the web-based interface through which the user accesses software and related services.

¹ R.S.C. 1985, c. C-42 ["the Act"].

² See *ibid.*, s. 27.

³ S.C. 2012, c. 20.

⁴ See Entertainment Software Association v. Society of Composers, Authors and Music Publishers of Canada, 2012 SCC 34 at para. 42 [SOCAN].

In the Act, a "computer program" means 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." This definition appears broad enough to encompass web-based software, because it refers to the use of such a program "directly or indirectly in a computer." A "computer program" falls within the broader definition of a "literary work" for copyright purposes.

Thus, from the perspective of a software vendor or service provider, the application of the term "copyright" in section 3 of the Act means the right to do or authorize any of the following:

- 1. to produce or reproduce the software or the user interface through which the software is accessed (section 3(1)(a));
- 2. to communicate the software or user interface to the public by telecommunication (section 3(1)(f));
- 3. to "rent out" the software or access to the software, in the case of a computer program that can be reproduced in the ordinary course of its use, "other than by a reproduction during its execution in conjunction with a machine, device or computer." For these purposes, "rental" of software is determined by looking at the surrounding circumstances and at whether the arrangement was entered into with motive of gain (sections 3(1)(h) and 2.5(1)); and
- 4. with the amendments introduced under the *Copyright Modernization Act*,⁶ in the case of software that is in the form of a "tangible object" (presumably on digital media such as a CD), to sell or otherwise transfer ownership of the "tangible object," as long as that ownership has never previously been transferred in or outside Canada with the authorization of the copyright owner (s. 3(1)(j)).

The Act contains additional rights that do not readily lend themselves to software, such as the rights related to musical performances; conversion of literary works to film; or, for example, the right to make any sound recording, film, "or other contrivance" by means of which the software or user interface may be reproduced—a right that is unlikely to be triggered by any of the common means of dealing with software. Therefore, the rights described in sections 15 and 26, relating to a performer's performance; the rights in section 18, relating to sound recordings; the provisions of section 21, for "communication signals"; and the rights of broadcasters would not apply to software and are not considered here.

Because the Act is exhaustive in its description of "copyright," any analysis of when a breach of contract constitutes at the same time an infringement of copyright must fit into one of the enumerated rights listed above. As described by the Court in *Harmony Consulting Ltd. v. G.A. Foss Transport Ltd.*, 7 "it is necessary to find a

⁵ Supra note 1, s. 2.

⁶ Supra note 3. Paragraph (j) has been added to s. 3(1).

⁷ 2011 F.C. 340 [Harmony Consulting].

basis in the *Copyright Act* for subsistence of copyright in a work, for ownership, and for infringement. If it cannot be grounded in the statute then there is no issue of copyright." For the purposes of this analysis, it is assumed that the other elements of valid copyright are satisfied—for example, the conditions related to ownership and authorship, the stipulation that the author must be a citizen of or ordinarily resident in a treaty country, and that the term of copyright has not expired. A review of these issues, and the various defences available to copyright infringement, is beyond the scope of this article.

2.2 Online Licence Agreements

Software licence agreements, in their traditional form, are entered into as a form of contract between the end-user as licensee and the software vendor as licensor. The basic elements of contract must be satisfied—namely, that there is offer, acceptance, and consideration and that the parties can be accurately determined. A reliable line of cases in Canada has made it clear that traditional software licences, when contract formation is handled appropriately, can function as valid contracts. The term "traditional software licences" is meant to refer to the distribution of a copy of the software either by means of a "tangible object," such as a CD, or through the download of a copy of the software, where the software resides on the end-user's computer system.

For example, a user may indicate acceptance by unwrapping a shrink-wrapped disk to obtain the software, clicking an "I accept" button, or indicating assent to particular licence terms in some other way.

A U.S. case, *ProCD*, *Inc. v. Zeidenberg*, cited with approval in several Canadian cases, considered the enforceability of a shrink-wrap end-user agreement. In *ProCD*, the Court decided that the end-user was bound by the shrink-wrap agreement in connection with a CD-ROM. In such a case, the end-user entered into the licence agreement when the individual tore the wrapping from the package, rather than indicating assent through execution of a paper document.

As reviewed in Century 21 Canada Limited Partnership v. Rogers Communications Inc.:

In *ProCD* the outside of the box indicated that the purchase was subject to a licence and the licence appeared in the manual enclosed with the software. The licence also appeared on the computer when the software was used. The user had the opportunity to read the licence and accept its terms before using the software. The Court held the terms were binding.¹⁰

⁸ *Ibid.* at para. 145.

⁹ 86 F.3d 1447 (Court of Appeals, 7th Cir. 1996) [*ProCD*].

¹⁰ 2011 BCSC 1196, 338 D.L.R. (4th) 32 at para. 86 [Century 21].

Several years after *ProCD* was decided, a Canadian Court, in *Rudder v. Microsoft Corp.*, ¹¹ upheld Microsoft's terms of use for its MSN service, where the enduser, as part of the sign-up routine, was required to acknowledge acceptance of the terms by clicking on an "I Agree" button at the time the member agreement was displayed. Winkler J. stated:

Neither the form of this contract nor its manner of presentation to potential members are so aberrant as to lead to such an anomalous result. To give effect to the plaintiffs' argument would, rather than advancing the goal of "commercial certainty," to adopt the words of Huddart J.A. in *Sarabia*,^[12] move this type of electronic transaction into the realm of commercial absurdity. It would lead to chaos in the marketplace, render ineffectual electronic commerce and undermine the integrity of any agreement entered into through this medium. On the present facts, the Membership Agreement must be afforded the sanctity that must be given to any agreement in writing.¹³

Thus, early in the Internet economy, courts showed willingness to adapt to new forms of contracting. These steps of abstraction—namely, the concept that a written paper agreement signed by the parties and an electronic version of the agreement, with an indication of assent by means of a click, should both be treated the same way—paved the way for the introduction of other means of assenting to licence agreements, including implied consent, as seen in cases such as:

- 1. *Kanitz v. Rogers Cable Inc.*, ¹⁴ in which the licensee's conduct of continuing to make use of the service after receiving notice of certain amendments indicated assent to the terms of the agreement;
- 2. Canadian Real Estate Association v. Sutton (Québec) Real Estate Services Inc., 15 where certain terms of use were upheld, even without express consent to the terms of the agreement;
- 3. Century 21 Canada Limited Partnership v. Rogers Communications Inc., ¹⁶ in which, once again, assent was communicated by the user even in the absence of express consent. Assent was implied, after notice of the terms of use was established, together with the knowledge that continued use would indicate assent; and
- 4. *Hudye Farms Inc. v. Canadian Wheat Board*,¹⁷ in which an online sign-up process for a Canadian Wheat Board grain-handling contract incorporated certain

¹¹ 1999 CanLII 14923, 106 O.T.C. 381, 2 C.P.R. (4th) 474 (Ont. S.C.J.) at paras. 16-17 [Rudder], cited with approval in Century 21, supra note 10 at para. 90.

¹² Sarabia v. "Oceanic Mindoro" (The) (1996), 4 C.P.C. (4th) 11 (B.C.C.A.), leave to appeal denied, [1997] S.C.C.A. No. 69 (QL).

¹³ Rudder, supra note 11 at paras. 16-17.

¹⁴ 2002 CanLII 49415, 58 O.R. (3d) 299, 21 B.L.R. (3d) 104 (S.C.J.).

¹⁵ 2003 CanLII 22519 (QCCS), [2003] J.Q. No. 3606 (QL) (C.S.).

¹⁶ Supra note 10.

¹⁷ 2011 SKQB 29 (CanLII), upheld 2011 SKCA 137 (CanLII).

standard terms. Although no one actually signed those terms, the Court agreed that they were binding on the parties through a series of agreements and click-through screens.

It is clear from this brief review that courts in Canada will uphold agreements in many forms as between software vendors and end-users, when licensing software for download and for other web-based software services. It is likely that Canadian courts will uphold similar agreements related to the provision of "cloud-computing" services.

It is worth reviewing the terms of these agreements. A typical software licence or terms-of-use agreement will grant certain permissions, and also impose a number of use restrictions and prohibitions. Although there is no standard set-of-use restrictions, a typical list of prohibitions would include the following:

- copying the software;
- modifying or creating derivative works of the software;
- exceeding the number of licensed users for the software;
- decompiling, reverse engineering, or disassembling the software;
- attempting to derive the source code of the software;
- renting, leasing, or lending the software;
- framing or linking, in the case of web-based software;
- providing commercial hosting services with the software;
- separating the component parts of the software;
- using the software for commercial purposes, in the case of a personal or academic licence; or
- sublicensing the software to others.

These prohibitions are listed in the licence agreement, but when does a breach of these restrictions—and therefore a breach of the terms of the licence—constitute copyright infringement?

From these commonly seen restrictions, the following general issues are addressed below according to available Canadian case law:

- 1. copying,
- 2. modifying,
- 3. reverse engineering or decompiling,
- 4. browsing or viewing,
- 5. framing and displaying,
- 6. streaming,

- 7. linking,
- 8. misattribution.
- 9. use (personal or commercial purpose),
- 10. exceeding the number of authorized users, and
- 11. using "bots."

3.0 WHAT CONSTITUTES COPYRIGHT INFRINGEMENT?

Courts in Canada have made it clear that "copyright infringement does not arise out of a breach of contract." Put another way, the mere breach of a software licence does not, in and of itself, constitute or trigger an infringement of copyright. Infringement must be anchored in the *Copyright Act*. Section 2 of the Act defines infringing as, "in relation to a work in which copyright subsists, any copy, including any colourable imitation, made, or dealt with in contravention of this Act."

A software licence or terms of use provides the means of consent for the licensee or end-user to engage in the various acts that are reserved to the copyright owner. The Federal Court of Appeal has made it clear that

copyright is defined in terms of the absence of the consent of the owner of the copyright:

27(1) It is an infringement of copyright for any person to do, *without the consent of the owner* of the copyright, anything that by this Act only the owner of the copyright has the right to do. [Emphasis added.]

Consequently, proof of copyright infringement requires proof of lack of consent. It is therefore illogical to conclude that there has been infringement, subject to the effect of a purported licence. It may be that a party has done something which, by the terms of the *Copyright Act*, [19] ... only the owner of the copyright may do. But, before that conduct can be defined as infringement, the judge must find that the owner of the copyright did not consent to that conduct.²⁰

Thus, the breach of a licence can result in a termination or withdrawal of that consent, through termination of the agreement. Conduct that violates the licence can also be said to fall outside the scope of the permission or licence granted by the copyright owner. A finding by the court that the copyright owner has withdrawn consent, or that the impugned acts fall outside the scope of the licence, will set the stage for a determination of infringement. However, a lack of consent, or a copy-

¹⁸ See Corel Corp. v. Guardian Insurance Co. of Canada (2001), 26 C.C.L.I. (3d) 39 at para. 22 (Ont. S.C.J.), and cited with approval in Harmony Consulting, supra note 7 at para. 261.

¹⁹ Supra note 1, s. 27(1).

²⁰ Positive Attitude Safety System Inc. v. Albian Sands Energy Inc., [2006] 2 F.C.R. 50 at para. 39.

right owner's act of withdrawing consent by terminating a licence, does not convert all violations of the licence into copyright infringement. Infringement can flow only when, in the case of a software licence, the licensee or end-user does or authorizes, without consent, those acts that are reserved to the owner of the copyright.

In the final section of this article, the common prohibitions contained in a typical software licence agreement are examined from the perspective of copyright infringement claims.

3.1 Copying

The right to make copies of a work is central to the concept of copyright, and unauthorized copying is commonly among the first prohibitions listed in licence agreements and terms of use. Copying software without the consent of the copyright owner therefore constitutes an infringement of copyright, as well as a breach of the licence. In *R. v. Borg*, ²¹ a company was convicted of eight offences under the *Copyright Act* relating to importation and sale of unauthorized copies of software. This is the case in which a "multiplication" of copies was addressed, which goes to the heart of copyright, as discussed by the Supreme Court in *Théberge v. Galerie d'Art du Petit Champlain Inc.* ²² In *Century 21*, ²³ the Court found that the defendants had indexed and copied the Century 21 website, including all property listings, prices, MLS descriptions, address information, bedrooms, bathrooms, lot size, listing styles, tax information, and other information related to the property listings. This was both a breach of the online terms and an infringement of copyright.

However, there are several interesting aspects to the prohibition against copying.

3.1.1 De Minimis Copying

In the 2003 decision in *Dolmage v. Erskine*,²⁴ the copying of approximately 5 percent (comprising 5 lines out of 116 lines of original text) was not considered a "reproduction of a substantial part of the whole" and, therefore, did not constitute copyright infringement, although that case did not relate to software code.

In *Century 21*, the Court indicated that the defendant's copying of truncated property descriptions, instead of the full property descriptions copied from the plaintiff's site, did not constitute copyright infringement because it did not meet the criteria for substantial copying.

Compare this with the U.S. case *Veritas Operating Corp.* v *Microsoft Corp.*, ²⁵ where the Court indicated that copying a mere 0.03 percent of software code (in

²¹ [2007] O.J. No. 3287 (QL).

²² 2002 SCC 34, [2002] 2 S.C.R. 336 at para. 42.

²³ Supra note 10.

²⁴ 2003 CanLII 8350 (ON SC).

²⁵ No. 06-0703, 208 U.S. Dist. LEXIS 8166 (W.D. Wash. Feb. 4, 2008).

this case, the allegation of copying related to 54 lines out of about 160,000 lines of code) may constitute copyright infringement if the copied code is critical to the operation of the computer program.

3.1.2 Backup Copies

Although many standard software licences will permit the making of backup copies of the software, this provision is not universally included in licences and, in any event, the making of backup copies of software does not apply in the case of online or cloud-computing agreements, because there is nothing for the user to backup.

A backup copy will be permitted under the amended provisions of the *Copyright Modernization Act*,²⁶ which has introduced an entirely revised section to address the permission to make backup copies and the conditions attached to such copies. Thus, making a backup copy will not constitute copyright infringement if it is done within the scope permitted in the Act.

3.1.3 Copying for Interoperability

The *Copyright Modernization Act* has also introduced an entirely new section²⁷ dealing with interoperability of software. Specifically, the section permits someone to make a copy of the software for the purposes of obtaining information that would allow the person to make the software interoperable with another application. With this express permission built into the amended Act, any prohibition in a licence agreement would have to be crafted carefully to remain consistent with this new section.

3.1.4 Caching, Indexing, Scraping

Search engines and, indeed, the Internet itself function more efficiently through the use of caching of sites, including, in some cases, portions of copyright-protected sites. In *Field v. Google Inc.*, ²⁸ a U.S. court tackled the issue of caching. The *Field* Court decided that even if Google copied or distributed the plaintiff's copyrighted works through its system of making "cached" links, Google engaged in a "fair use" of those copyrighted works.

The indexing of "thumbnail" images by search engines has also been found to qualify as fair use under U.S. law in the *Kelly v. Arriba Soft Corporation*²⁹ decision, cited with approval in *Century 21*.³⁰ Thus, infringement was found to have occurred, but was saved by the fair-use defence.

²⁶ Supra note 3, s. 30.6.

²⁷ *Ibid.*, s. 30.61.

²⁸ 412 F. Supp. 2d 1106, 2006 U.S. Dist. LEXIS 10923 [Field].

²⁹ 336 F.3d 811 (U.S.C.A. 9th Cir. 2003).

³⁰ Supra note 10 at para. 205.

As mentioned above, the Court in *Century 21* found that certain acts of indexing and copying the plaintiff's site did constitute infringement. "Scraping" was not mentioned in the Court's infringement analysis.

3.1.5 Uploading to a Server

While a prohibition on "uploading to a server" is not typically listed in software licences—presumably because it would be caught by the prohibition on copying or other restrictions—uploading software to a server can be considered an infringement where it results in a communication to the public. It can be characterized as an authorization of the communication of the software by telecommunication, contrary to section 3(1)(f) of the Act. This is supported by the decision in *Warman and National Post Company v. Fournier*³¹ and in *Public Performance of Musical Works (Re)*, where the Court confirmed that a person authorizes communication of a work by telecommunication when that person makes the work available to the public on a server.

3.2 Modifying

A prohibition against modification of the software is another common restriction. In *Gemologists International Inc. v. Gem Scan International Inc.*,³⁴ the defendants infringed copyright when they copied and modified the plaintiff's software to create their own program. However, modification is not within the scope of the rights protected by copyright. It is the reproduction of the software that occurs during modification that may constitute infringement.

The Court in *Harmony Consulting* went so far as to find as a fact that "it is the standard practice to backup a program file before making a modification."³⁵ Although modification may involve unauthorized copying (thus triggering the prohibition against copying), this is not necessarily the case. In *Harmony Consulting*, the Court decided that modifications made by the defendant did not involve a "reproduction" within the scope of section 3 of the Act, because the defendant merely opened a file, made the modifications, then saved the file, without making a copy of the code. No infringement occurred.

³¹ 2012 FC 803 at para. 13 [Warman].

³² [1999] CBD No. 5 (Canada Copyright Board) (QL) at 19.

Note that the Warman decision by the Federal Court was released a few weeks before the Supreme Court's analysis of s. 3(1)(f) in SOCAN, supra note 4, where the SCC decided that a download did not qualify as a "communication" for the purposes of s. 3(1)(f) and that it was improper to extend "the term 'communicate' to capture the Internet delivery of permanent copies of a work. In our view, this interpretation goes far beyond what the term 'communicate' was ever intended to capture" (at para. 32). The SCC was considering the download of works to a customer, not the upload of works to a server.

^{34 (1986), 7} C.P.R. 225 (Ont. H.C.).

³⁵ Supra note 7 at para. 270.

3.3 Reverse Engineering or Decompiling

There are very few software licences that do not include a prohibition against reverse engineering the software and decompiling the code. Again, this right—the right to reverse-engineer—is not within the scope of the Act. However, reverse engineering often triggers an infringement of the reproduction or copying right. One commentator describes "reverse engineering" as "the process by which the object code of a computer program is translated into another computer language ... so that it can be understood and analyzed."³⁶ Although reverse engineering and decompiling may go hand-in-hand with reproduction of an infringing copy, this is not necessarily the case for two reasons. First, consider the decision in *Harmony Consulting*, which decided that decompiling was not an infringement.³⁷ That case dealt with modifications to the program within Microsoft Access, an application that permitted shifting to a "design view" for the purpose of viewing the source code. Second, as mentioned above, the amendments in the *Copyright Modernization Act* have introduced section 30.6, which permits a type of reverse engineering of the software for the purposes of interoperability with another application.

3.4 Browsing or Viewing

Although Internet users perform this act every day, there does not appear to be any consensus on what exactly constitutes "browsing" for the purposes of copyright law. Browsing suggests the "temporary materialization" of a work, without permanent fixation. It could be as simple as merely looking at the graphical user interface of the software or at the underlying code. Browsing certainly does not fall within the rights enumerated in section 3 of the Act. In *Fox on Canadian Law of Copyright and Industrial Designs*,³⁸ the author notes that there may be an implied licence to use works that are available online for browsing. However, the decision in *Century 21* suggests that content (including software) that is available online may still be subject to terms and conditions of use, even without the requirement for a click-through agreement.³⁹ Even in the case where there is an implied agreement, and browsing is somehow prohibited under that agreement, mere browsing will not constitute an infringement of copyright. The Court in *Harmony Consulting* went so far as to state that "[t]here is no copyright infringement in looking at the programming."⁴⁰

³⁶ John S. McKeown, Fox on Canadian Law of Copyright and Industrial Designs, 4th ed. (Toronto: Carswell, 2003) at para. 21:3(g)(vi)(C).

³⁷ Supra note 7 at para. 275.

³⁸ Supra note 36 at para. 21:3(g)(vi)(B).

³⁹ See supra note 10 at para. 116: "In my opinion, a publically [sic] available website does not necessarily give a right of access free of any contractual terms. Depending on the circumstances, a contract may be formed."

⁴⁰ Supra note 7 at para. 279.

3.5 Framing and Displaying

Framing seems, in some ways, like a quaint practice, better suited to an earlier version of the Internet, when "frames" where a common design element in many websites. Nevertheless, many online licences still prohibit framing, and the framing of software could arguably infringe the copyright owner's right to communicate the software to the public by telecommunication under section 3(1)(f) (see the discussion under heading 3.6, "Streaming," below). The *Century 21* decision provided a definition of framing as "computing a graphic panel in an internet browser which encloses a self-contained section of data and permits multiple independent document viewing."

The recent disputes involving software virtualization—in which software applications such as Microsoft Office are virtualized for remote users to access via desktops, tablets, or other mobile devices—represent the closest cousins of the older practice of framing.⁴² Framing or virtualization may constitute copyright infringement (to the extent the right to communicate by telecommunication can be engaged) as well as a breach of the licence or terms of use.

3.6 Streaming

Another interesting twist to virtualization is the issue of streaming, particularly in light of recent copyright decisions by the Supreme Court of Canada. Although streaming content is often associated with musical works or movies, the analysis could be applied to streaming or virtualizing software, video games, cloud-computing services, or other software-based entertainment services, which are typically distributed with terms of use. In *SOCAN*,⁴³ the Court reviewed the communication right in section 3(1)(f) in the context of downloading a copy of a video game containing musical works. The Court was clear that the Internet delivery of a copy of a video game did not amount to a "communication" under section 3(1)(f). The Court made an important distinction between a "download" (after which a "durable copy" resides on the end-user's computer, resulting in a reproduction) and a "stream" (during which the work is transmitted, in a way that is impermanent in nature, similar to a performance). In particular, the Court noted that a download is distinguishable from a stream:

Although a download and a stream are both "transmissions" in technical terms (they both use "data packet technology"), they are not both "communications" for purposes of the *Copyright Act*. This is clear from the Board's definition of a stream as "a transmission of data that allows the user to listen or view the content at the time of transmission

⁴¹ *Ibid.*, at para. 10.

⁴² See e.g. "TuCloud CEO Dares Microsoft to Sue Over Virtual Desktops," online: Cloudline http://www.wired.com/cloudline/2012/03/ceo-dares-microsoft.

⁴³ Supra note 4.

and that is not meant to be reproduced" Unlike a download, the experience of a stream is much more akin to a broadcast or performance.⁴⁴

This is important because the act of streaming or virtualizing software, software-based games, or cloud-computing services now has to be considered in the context of a "performance" for copyright purposes. For a performance to trigger the rights in section 3, it must be a communication made to "the public," raising the threshold at which infringement will occur. Private transmissions will not meet that threshold. Streaming or virtualization (characterized as a "performance") does not engage the reproduction rights in section 3(1) unless a durable copy of the software or other protected work is transmitted. Indeed, the business model behind cloud-computing and virtualization is to specifically *avoid* the transmission of durable copies of the software. The Supreme Court of Canada has also clarified that streaming, even point-to-point streaming where access is initiated by the user at the time and place of the user's choosing, can be considered a communication to "the public" within the meaning of section 3(1)(f) of the Act:

Where such a series of point-to-point communications of the same work to an aggregation of individuals is found to exist, it matters little for the purposes of copyright protection whether the members of the public receive the communication in the same or in different places, at the same or at different times or at their own or the sender's initiative.⁴⁵

The Court's conclusion is also reflected in the recent changes introduced by the *Copyright Modernization Act*, which stipulates in a new section:

For the purposes of this Act, communication of a work or other subject-matter to the public by telecommunication includes making it available to the public by telecommunication in a way that allows a member of the public to have access to it from a place and at a time individually chosen by that member of the public.⁴⁶

To sum up, reproduction rights will *not* be caught by the act of streaming or virtualization, but the rights under section 3(1)(f) can be engaged, provided the communication is made to the public. A communication "to the public" can occur where protected works are streamed online. Copyright infringement can occur in the case of unauthorized streaming or virtualization of protected works, such as games, and (arguably) software or software-based cloud-computing services. Thus, streaming and virtualization can trigger both copyright remedies and (where prohibited by the licence or terms of use) contractual remedies.

⁴⁴ Ibid. at para. 28.

⁴⁵ Rogers Communications Inc. v. Society of Composers, Authors and Music Publishers of Canada, 2012 SCC 35 at para. 52.

⁴⁶ Supra note 3, s. 2.4(1.1).

3.7 Maintaining a Link

Linking to software in and of itself will not constitute infringement, because no copying occurs. In *Warman v. Fournier*,⁴⁷ the Federal Court decided that hyperlinking to a copyright-protected work was not an infringement, because the link was to a copy of the work that the copyright owner had himself made available on his own site.

3.8 Misattribution

A modification of software may result in misattribution—that is, the attribution of the work to an author other than the original author of the software. This may occur in the case where, for example, a company decides to make an unauthorized copy of the software and display its own name, rather than the owner's name, in association with the software in a startup screen or about file. Although a misattribution may be characterized as an infringement of the author's moral rights pursuant to section 28.1(1) of the Act,⁴⁸ an infringement of moral rights does not constitute an infringement of copyright.

3.9 Use: For Personal or Commercial Purposes

Many software applications are designed or specially priced for personal, academic, or non-commercial users. The licence terms for such applications contain prohibitions against use for commercial purposes. Where software is licensed for personal use, its use for commercial purposes does not, by itself, necessarily constitute an infringement of copyright. The section 3 rights in the Act make no reference to or distinction between personal or commercial use. Thus, commercial use in the face of such a prohibition may well trigger a breach of the licence or terms of use, without infringement. If there is infringement through some other means, such as an infringement of the right to copy the work, then the commercial purpose of the infringement may go to assessing the availability of any defence—for example, among other factors, the fair dealing defence will consider the "purpose of the dealing."⁴⁹

3.10 Exceeding Number of Authorized Users

Exceeding the number of authorized users is not, by itself, an infringement of copyright.⁵⁰ The Court in *Harmony Consulting* goes so far as to state that "simple use" does not constitute infringement even though, in both cases, the conduct could result in a breach of the licence agreement or terms of use.

⁴⁷ Supra note 31 at para. 37.

⁴⁸ See Guillmette c. Centre Cooperatif de Loisirs et de Sports du Mont Original (1986), 15 C.P.R. (3d) 409 (F.C.T.D.) and Harmony Consulting, supra note 7 at para. 289.

⁴⁹ CCH Canadian Ltd. v. Law Society of Upper Canada, 2004 SCC 13, [2004] 1 S.C.R. 339.

⁵⁰ Harmony Consulting, supra note 7 at para. 301.

3.11 Use of "Bots"

The use of "bots" should not, in itself, change the essential analysis regarding copyright infringement in Canada. In *Century 21*, the Court referred to a "robot" or "spider" as an automated software program used by search engines to index websites. The Court considered the use of robots to automate the function of indexing and copying. The use of robots allowed the defendant to index the Century 21 website, including all property listings, which was found to constitute an infringement. The Court noted: "Does the fact that Internet search engines access sites such as those of Century 21 using search engines, crawlers and robots change the legal situation? In my view it does not." "52"

In MDY Industries, LLC v. Blizzard Entertainment, Inc. and Vivendi Games, *Inc.*, 53 the U.S. Court of Appeals reviewed the question whether the use of bots by a user in connection with a multiplayer video game could constitute infringement of the copyright in that game. In this case, the game—a popular role-playing game known as World of Warcraft—was subject to terms of use that imposed certain conditions. The defendant, a user who had assented to the terms of use, had authored a "bot," a software program designed to automatically play the lower levels of World of Warcraft, permitting a player to advance into the more challenging and exciting upper levels of the game. The bot neither altered nor copied the World of Warcraft software. However, once the plaintiff realized the extent of players' use of bots, it modified its terms of use to specifically prohibit the practice. Thus, a player would be in breach of the terms of use by employing a bot of this type. However, the Court was clear that, in this case, the use of bots did not constitute copyright infringement, because it did not violate any of the exclusive rights of copyright. Although the decision must be viewed through the lens of the U.S. Digital Millennium Copyright Act,⁵⁴ under which it was prosecuted, it can be instructive in the Canadian context to reinforce the notion that a breach of terms of use will not, on its own, trigger a Copyright Act violation.

4.0 CONCLUSION

The foregoing review of case law relevant to copyright and the various prohibitions and use restrictions contained in typical software licence agreements and online terms of use illustrates that there are actually very few restrictions that match with corresponding rights contained in the *Copyright Act*. The conclusion is that many of the use restrictions imposed on users or licensees must be viewed as providing contract remedies, and their breach may never trigger copyright remedies.

⁵¹ Supra note 10 at para. 10.

⁵² *Ibid.* at para. 127.

⁵³ Case No. 09-15932 (U.S.C.A. 9th Cir. Dec. 14, 2012).

⁵⁴ 17 U.S.C. § 1201.

For copyright owners, the attraction of copyright remedies, including access to injunction and statutory damages for infringement, will remain in cases where users have breached those terms that also trigger infringement remedies. However, in many cases, the strength of a software vendor's position will depend on the contractual rights and remedies that may be available upon breach of the terms, including termination or suspension of the account in the case of web-based software services or cloud-computing services. Overall, as part of a broader strategy of enforcing compliance, software vendors should review their licence agreements and terms of use to determine which remedies can be pursued in the event of breach.