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REMARKS ON TECHNOLOGICAL NEUTRALITY IN COPYRIGHT LAW AS A SUBJECT MATTER PROBLEM: LESSONS FROM CANADA

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ABSTRACT. The paper argues that the principle of technological neutrality in copyright law is best grasped, not as a policy-driven imperative seeking to adapt copyright law to the exigencies of the digital environment, but rather as a principle immanent in the modern concept of copyright subject matter providing that merely technical or non-expressive uses of works of authorship do not attract liability. Technological neutrality is but a corollary of originality; that is, of the elementary proposition that copyright law protects original expression and nothing but original expression.

KEYWORDS: copyright, technological neutrality, originality, material form, Baker v Selden, Hollinrake v Truswell, British Leyland v Armstrong, ESA v SOCAN, CBC v SODRAC.

I. Introduction

The proposition that not all instances of unauthorised copying attract copyright liability is at once entirely elementary and, perhaps precisely because of that, surprisingly untheorised. By "untheorised" I do not mean that copyright scholars are unfamiliar with the proposition, but rather that it is not always adequately and sufficiently integrated into the structures, both conceptual and metaphorical, that we routinely deploy in developing copyright theory and practice. The proposition sits within our awareness like an acknowledged yet unelaborated kernel. Its familiarity functions to distract us away from the task of unfolding its ripples and reverberations

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pervasively. As if through some kind of ironic ruse, the obvious is all-too-often the place where what we think we know remains merely implicit, depriving us of its lessons. Reminiscent of a purloined letter in an Edgar Allan Poe story, what we seek hides out in the open, like a tell-tale heart at the core of the otherwise familiar.

In 2004, for example, in its indisputably landmark decision, CCH Canadian Ltd. v Law Society of Upper Canada (hereafter, CCH), the Supreme Court of Canada (SCC) held that so-called copyright exceptions are to be construed instead as "user rights". The holding remains rich in implications. Perhaps the most accessible is that there are instances of unauthorised copying that fail to attract liability. But more significantly, the point is that those instances amount to lawful exercises of prerogatives, amply affirmed and recognised in copyright law, held by persons other than the copyright holder in respect of copyright subject matter. The SCC construed the field of lawful yet unauthorised copying not as a peripheral series of exceptions subordinate to the author's sovereign right to exclude, but rather as a field equally integral to elementary copyright propositions. Lawful copying – the public domain – pulsates constitutively at the heart of copyright. Viewed as a systemic whole inclusive of user rights, copyright is less a prohibition on copying than an institutionalised distinction between lawful and wrongful copying. "Balance" is the word the SCC chose in CCH to capture this set of observations, intending to remind us thereby that copyright, not an author-centric juridical order, is first and foremost a relation between authors and publics, creators and users, and that therefore, because users, too, hold entitlements, the proposition that not all copying is actionable is always in the foreground.

It may have seemed for a brief moment that CCH was a particularly innovative judgment. But we would do well to keep in mind that CCH merely recalled Théberge v Galerie D'Art du Petit Champlain Inc. (hereafter, Théberge), in which, two years earlier, the SCC pronounced unambiguously that "[t]his is not new", supporting its iteration of the copyright balance by citing the 1769 decision of the Court of King's Bench in Millar v Taylor.² Nor can we fail to mention in this context the well-known 1785 statement of Lord Mansfield's in Sayer v Moore:

In deciding it we must take care to guard against two extremes equally prejudicial; the one, that men of ability, who have employed their time for the service of the community, may not be deprived of their just merits, and the reward of their ingenuity and labour; the other, that the world may not be deprived of improvements, nor the progress of the arts be retarded.³

 ²⁰⁰⁴ S.C.C. 13, at [48].
 2002 S.C.C. 34, at [30], citing Millar v Taylor (1769) 98 E.R. 201, 218 (K.B.).

Over 200 years later, the rehearsal in *Théberge* is unsurprisingly similar: "The Copyright Act is usually presented as a balance between promoting the public interest in the encouragement and dissemination of works of the arts and intellect and obtaining a just reward for the creator (or, more accurately, to prevent someone other than the creator from appropriating whatever benefits may be generated)." In short, the proposition that lawful copying is part and parcel of copyright is as old as copyright itself. The concept of user rights is less an innovation than an insistence to capture (or recapture) age-old copyright concerns. Moreover, while the "user rights" terminology is perhaps specific to the Canadian context, the concept of copyright law as a juridical order involving both authors and users is certainly familiar in common law jurisdictions, and by no means unfamiliar in civil law ones. 6

In what follows, I will argue that, like the concept of balance, the principle of technological neutrality in copyright law is, albeit in a crucially different sense, an iteration of the fundamental proposition that lawful copying is integral to copyright. Not all copying is actionable. Of course, there can be no doubt that, at least *prima facie*, the principle of technological neutrality means that equivalent acts in relation to copyright subject matter should be treated the same irrespective of the technological medium involved. Thus, for example, an aquatint reproduction should be treated the same as an engraving, a lithograph the same as a photograph, a digital photograph of a painting the same as a non-digital one, a broadcast the same as a live performance, and so on and so forth. Technological neutrality means technological equivalence. Because it operates to extend the reach of copyright law across different and varied media, the principle of technological neutrality is not infrequently said to support and endorse broad interpretations of the rights of exclusion granted to a copyright holder. On this well-settled view, technological neutrality affirms not so

⁴ Théberge v Galerie, 2002 S.C.C. 34, at [30].

For recent discussion of user rights in the Canadian context, see M. Geist, "The Canadian Copyright Story: How Canada Improbably Became the World Leader on Users' Rights in Copyright Law" in M.L. Okediji (ed.), Copyright Law in an Age of Limitations and Exceptions (Cambridge 2017), ch. 6, 169–205. For discussion in other contexts, see M. Borghi, "Exceptions as Users' Rights?" in E. Rosati (ed.), The Routledge Handbook of EU Copyright Law (Milton, Abingdon and New York 2021), ch. 13, 263–80; T. Aplin and L. Bently, Global Mandatory Fair Use: The Nature and Scope of the Right to Quote Copyright Works (Cambridge 2020); N. Elkin-Koren, "Copyright in a Digital Ecosystem: A User Rights Approach" in R. Okediji (ed.), Limitations and Exceptions, ch. 5, 132–68; H. Breakey, "User's Rights and the Public Domain" [2010] I.P.Q. 312.

See e.g. Aplin and Bently's recent and aptly entitled study *Global Mandatory Fair Use*. See also J. Parish, "Sampling and Copyright – Did the CJEU Make the Right Noises?" [2020] C.L.J. 31.

⁷ The following SCC formulation in *Robertson v Thomson Corp.*, 2006 S.C.C. 43, at [49] will suffice: "Media neutrality is reflected in section 3(1) of the Copyright Act which describes a right to produce or reproduce a work 'in any material form whatever'. Media neutrality means that the Copyright Act should continue to apply in different media, including more technologically advanced ones. But it does not mean that once a work is converted into electronic data anything can then be done with it. The resulting work must still conform to the exigencies of the Copyright Act. Media neutrality is not a licence to override the rights of authors – it exists to protect the rights of authors and others as technology evolves."

much a distinction between lawful and wrongful copying as much as an expansion of the field of wrongful copying.

To be sure, especially in the Canadian context, the principle of technological neutrality may also appear as a principle supporting and endorsing narrowing interpretations of copyright entitlements. For example, in Entertainment Software Association v Society of Composers, Authors and Music Publishers of Canada (hereafter, ESA),8 the SCC found that while Internet transmission of a work exclusively for purposes of downloading to provide durable copies of the work to an end user certainly attracts liability pursuant to the right of reproduction, it nonetheless fails to attract liability pursuant to the right of communication to the public by telecommunication. The SCC held that the statutory text specifying the right of communication to the public is to be read as an instance of the right of performance in public, such that the act of providing durable copies to an end user does not fall within the right of communication. Performances do not leave copies behind. Hence, streaming, but not transmission for downloading purposes, is an act of communication. Internet transmission for downloading purposes is "a method of delivery" of copies actionable under the right of reproduction, but not an independently relevant act simultaneously attracting liability under the right of communication.⁹ There is no cognisable difference between purchasing a copy of a work in a store, receiving it by snail mail, or downloading it via the Internet: "The Internet is simply a technological taxi that delivers a durable copy of the same work to the end user." Thus, imposing additional communication royalties on downloads "violates the principle of technological neutrality, which requires that the Copyright Act apply equally between traditional and more technologically advanced forms of the same media". 11 In ESA, this meant that, in the name of technological neutrality, the SCC avoided imposing additional layers of protections and fees based solely on a substitute delivery system. In this iteration, then, the principle of technological neutrality appears not only as an expansive tracing of the work through its manifestations in varying media, but also, and more significantly, as a potentially narrowing principle of statutory interpretation ensuring that, absent evidence of legislative intent to the contrary, the "traditional balance" between authors and users is preserved in the digital environment.12

A juxtaposition of these two versions of technological neutrality is bound to raise intractable difficulties. In both versions, technological neutrality means technological equivalence, but not in the same sense. The first version ensures that the rights of authors are not dissolved in the digital

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    8 2012 S.C.C. 34.
    9 Ibid., at [9], emphasis in original. Ibid., at [5].
    11 Ibid.
    12 Ibid., at [8]–[9].
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environment, thus affirming, unsurprisingly, that a digital photograph is for copyright purposes the same as a non-digital one. A copy is a copy. The second version ensures that, in this tracing from one medium to the other, the rights of users remain equally untrammelled, thus affirming, as in *ESA*, that a digital method of delivery, even if otherwise construable as a transmission of the work by telecommunication, cannot fall within the right of communication. A copy is *not* a copy where it is inconsistent with the traditional balance, whatever that might mean in any given context.

The difficulty is obvious enough. Situations in which the act scrutinised seems to fall squarely within the literal text of the statute, yet at the same time appears inconsistent with the traditional balance, present a dilemma between the text and the interpretive principle. In ESA, this difficulty did not arise with sufficient force, as the ESA majority managed to exclude the act of transmission from its interpretation of the statutory text providing the right of communication. But in Canadian Broadcasting Corp. v SODRAC 2003 Inc. (hereafter, SODRAC),13 scarcely three years after ESA, the SCC held that broadcast-incidental copies, admittedly nothing more than contrivances incidentally implicated in the act of broadcasting in the digital environment, nonetheless fall squarely within the statutory text providing the right of reproduction. Faced with a choice between the text and the principle, the SODRAC majority held that policy preferences purportedly embedded in technological neutrality cannot displace the plain meaning of the statute. Even if merely incidental, a broadcast-incidental copy is a copy until and unless the legislature says

It goes without saying that the impasse is neither new nor specific to Canadian copyright. The conflicted intersections between copyright law as we find it and copy-dependent technology are legion and global, so much so that one can hardly escape cringing with triteness when saying so. My aim here is only to pursue a line of thought beyond the impasse by grasping the two versions of technological neutrality as they arise in Canadian copyright from a single point of view. I want to demonstrate that the globally well-settled expansive view of technological neutrality as a tracing of the manifestations of a work in varying and diverse media necessarily contains, conceptually speaking, presuppositions that significantly and decisively constrain its application. To put it otherwise, I want to broach the concerns involved in the encounter between copyright law and digital technology through elucidation of bedrock and even oldfashioned copyright categories. To anticipate, perhaps all-too-early at this point, I will argue that technological neutrality is but a corollary of originality doctrine; that is, of the uncontroversial proposition that a work of

^{13 2015} S.C.C. 57.

authorship is an instance of original expression. On this view, technological neutrality is a subject matter problem. Boldly put, my point is that the expansive construal of technological neutrality is a misunderstanding of copyright subject matter, just as the balanced construal reaches for policy-driven interpretive imperatives to which it need not have recourse.

The basic contours of the line of thought I have in mind are as follows. The idea of technological neutrality clearly entails a distinction between copyright subject matter, on the one hand, and the varied media through which that subject matter may appear, on the other. Copyright law can equate an engraving and a digital photograph only by positing that the work as such subsists through its varied manifestations.¹⁴ An engraving and a digital photograph are obviously different. An engraving is a carving of lines and figures onto a hard surface. A digital photograph is a series of numbers. Yet copyright sees them as the same as soon as it construes the engraving as a reproduction of the digital photograph. Copyright law resiles from the obvious physical differences between the engraving and the digital photograph to posit their juridical identity, thereby affirming and protecting the subsisting integrity of the work as an instance of original expression. The condition for the possibility of this identity in difference is, of course, none other than the subsistence of the self-same work through different media. This condition is non-negotiable. In its absence, there could be neither technological neutrality in particular nor, for that matter, copyright in general. A copy is, after all, an identity in difference.

It bears emphasising, then, that an engraving is the reproduction of a digital photograph, not when viewed physically as a carving onto a hard surface, but only when grasped juridically as an iteration of the copyright subject matter subsisting in the digital photograph – as a repetition, that is, of an author's original expression. To say "technological neutrality" is to say that copyright law focuses, not on this or that substratum conveying a work, but rather on the work as such. The familiar and well-settled view of technological neutrality is but a way of stating the proposition that copyright subject matter is an author's original expression existing juridically over and above, and independently of, any particular substratum deployed to convey it.

But by the same token, were we to imagine, even if only for the sake of argument, the possibility of a non-expressive use of that substratum, we could not conclude that such a use amounts to a use of the work as such. On the contrary, the principle of technological neutrality would remind

On the history, formation and development of copyright subject matter as subsisting through varying manifestations, see M. Rose, Authors and Owners: The Invention of Copyright (Cambridge 1993); B. Sherman and L. Bently, The Making of Modern Intellectual Property Law: The British Experience, 1760-1911 (Cambridge 1999); M. Borghi, "Player Piano Roll" in C. Op den Kamp and D. Hunter (eds.), A History of Intellectual Property in 50 Objects (Cambridge 2019), 153–60. See also A. Peukert, A Critique of the Ontology of Intellectual Property Law (Cambridge 2021).

us that copyright is about original expression, not about the substratum deployed to convey it. It would tell us that copyright can no more focus on non-expressive use of that substratum than on the physical differences between an engraving and a digital photograph. For it is not the substratum as such that has copyright significance. Nor could it. If the substratum were granted copyright significance, then technological neutrality would lose the non-negotiable condition for the possibility of equating an engraving and a digital photograph, and the engraving could no longer be regarded as a reproduction of the digital photograph. It follows that just as technological neutrality must resile from the substratum to affirm and protect the expressive integrity of the work in different media, so must technological neutrality refuse the expansion of copyright beyond the work as such. The move whereby the expressive integrity of the work is granted subsistence through varying substrata is also, and eo ipso, the move whereby the substrata as such are excluded from the purview of copyright. What is good for the goose is good for the gander. Precisely as technological equivalence, technological neutrality means that non-expressive use is lawful: it is not a use of copyright subject matter as such.

That is the proposition on which I wish to elaborate in this paper. I have divided my elaboration into three sections. First, I elucidate briefly salient copyright doctrines to bring sharply into relief the pervasive immanence in copyright law of the axiom that not all copying is copyright infringement (Section II). By "salient", I mean doctrines that few, if any, would reasonably disagree are fundamental to copyright law. Specifically, I have in mind originality, idea/expression dichotomy, merger and fair dealing. The analysis serves to demonstrate that the axiom that not all copying is actionable arises in two distinct senses, on the one hand in relation to copyright scope and on the other in relation to copyright subject matter. Distinguishing between these two senses is crucial to the understanding of technological neutrality.

The elucidation of copyright fundamentals sets the ground, second, for a framing of the principle of technological neutrality as an instance falling squarely within the broader and traditional series of essential copyright concepts and doctrines designed to distinguish lawful and wrongful copying. While there can be no doubt that technological neutrality comes to the fore relatively late in the historical development of copyright jurisprudence generally, not least given the advent of digital technology, my point is that

Of course, the specifics of these doctrines need not be the same in all jurisdictions. But they do share sufficiently a family resemblance rendering them as instances of the distinction between lawful and wrongful copying. Thus, for example, the fact that "fair dealing" in Canada and the UK is rather "fair use" in the US, or even that in civil law jurisdictions we would speak instead, inter alia, of a "right of quotation", need not distract us away from broaching the observation that each of these doctrines may be fairly characterised as an instance where unauthorised copying of copyright subject matter fails to attract liability.

technological neutrality is best grasped not as some kind of add-on externally addressing the exigencies of the ongoing encounter between copyright law and digital technology, but rather as part and parcel of the very definition of copyright as a juridical order centrally and specifically concerned with works of authorship as original expressions. Technological neutrality is immanent in the conceptual structures, particularly the concept of originality, that we recognise as modern copyright. In Section III of this paper, I will set forth this framing of technological neutrality as a core copyright concept through an exegesis of section 3(1) of the Canadian Copyright Act 1985, the section providing the statutory definition of the right and held to be the statutory anchor of the principle of technological neutrality in Canada (Section III). Of course, I emphasise once again that I seek not to restrict the relevance of my remarks to the Canadian context but to work through aspects of the Canadian experience as examples of general and generalisable concerns.

By way of conclusion, I will deploy, third, the understanding of technological neutrality as an organic emanation of elementary copyright propositions in a brief critical comment on the conflicted vicissitudes of the principle in the SCC decision in *SODRAC* (Section IV). This brief concluding comment will serve to illustrate the force and import of technological neutrality as a subject matter principle affirming the lawfulness of non-expressive use.

II. NOT ALL COPYING IS ACTIONABLE

Originality is a fundamental condition of copyright protection. ¹⁶ It summons the law of copyright into operation. There is no such thing as copyright in the absence of originality. ¹⁷ Because it presides over the formation of the right, originality also, and therefore, demarcates its limits. The prohibition on copying that the right affirms is thus not a general prohibition on copying but a specific prohibition on copying the copyright holder's originality. Where a defendant can show that what she copied does not meet the originality threshold, she need not allege that she did not copy. On the contrary, she may calmly admit the copying while sustaining the allegation that what was copied is not copyright subject matter. We may say that subject matter problems are prior to infringement problems. There can be no copyright infringement where no copyright subject matter obtains. From the very outset, that is, originality operates as a distinction between lawful and wrongful copying. Only copying of originality is wrongful. From a copyright perspective, all other copying is lawful.

Without wishing to venture too far afield, I note here that even neighbouring rights are premised on the existence of originality somewhere at some point.

¹⁶ See e.g. D. Gervais, "Feist Goes Global: A Comparative Analysis of the Notion of Originality in Copyright Law" (2002) 49 Journal of the Copyright Society of the U.S.A. 949.

The idea/expression dichotomy elaborates the distinction further. ¹⁸ It is a dichotomy of protection: expression but not idea is copyright subject matter. Copying an author's ideas, even if original, is not actionable. If originality provides that only copying of originality is actionable, the idea/expression dichotomy provides that not originality generally, but only original expression specifically, is actionable. Once again, only copying of expression is wrongful. From the standpoint of copyright law, all other copying is lawful.

The doctrine of merger, too, fits comfortably in this series. Merger provides that, where an idea can be expressed in only one or a limited number of ways, no copyright over the expression itself obtains. Idea and expression are said to be merged. The defendant may copy not only idea but also expression freely. Merger is often viewed as a corollary of the idea/ expression dichotomy, providing that, given the merger of idea and expression, granting a monopoly in the expression is tantamount to granting a monopoly in the idea, contrary to the free availability of ideas affirmed in the idea/expression dichotomy. Just as there is no copyright in idea, so there is no copyright in merged expression. Merger may also be viewed as a corollary of originality doctrine, providing that the inseparability of idea and expression reveals that the transition from idea to expression, from expressed content to form of expression, is not an instance of specifically authorial expressive choices, but rather of some sort of mechanical unfolding of necessary prerequisites, distinct from those flowing from authorial choice, already contained in the idea itself. On this view, the producer of merged expression is not an author in the requisite sense, and therefore merged expression is not truly original expression. Whether we construe merger as a corollary of the idea/expression dichotomy or, alternatively, of originality doctrine, the point remains that a finding of merger is a finding that no protectable copyright subject matter obtains. The sphere of merger is thus a sphere of lawful as distinct from wrongful copying.

Fair dealing sustains and deepens the series further. It denotes situations in which unauthorised copying of original expression itself is not actionable. For example, a defendant's unauthorised copying for the purpose of criticism or review, where the copying is reasonably necessary for that purpose, is not subject to liability. The defendant is within her user rights. It would be a serious mistake, however, to think of fair dealing as an exception to a general prohibition on copying. Fair dealing is lawful copying under the rubric of rights of use held by persons other than the copyright holder. It is not excused infringement but absence of infringement.

Of course, the idea/expression dichotomy is recognised in international copyright law. See Agreement on Trade Related Aspects of Intellectual Property Rights 1994, art. 9(2) and WIPO Copyright Treaty 1996, art. 2: "Copyright protection shall extend to expressions and not to ideas, procedures, methods of operation or mathematical concepts as such."

It tells us not that liability may be waived when extraneous considerations are operative but rather that copyright is not an absolute right inclusive of any and all uses of copyright subject matter. To put it otherwise, the purview of a copyright holder's exclusive rights is confined to certain uses of her work not falling within the rubric of rights of use held by others. Thus, while originality, idea/expression and merger teach that not copying per se but only copying of original expression is actionable, fair dealing emphasises that, far from instituting a general prohibition on copying, copyright affirms circumstances in which original expression is to be freely copied. The principle of balance neither does nor can mean that user rights come to impinge on limitless rights of exclusive use. That would be to conceive lawful copying as a merely epiphenomenal superimposition of secondary claims over an otherwise intact and pristine author-centric structure. As the SCC warned in CCH, we must guard against confusing the fact that, procedurally, user rights arise as a defence to copyright infringement with the quite different proposition that, substantively, user rights are anything less than integral to the copyright system as such.¹⁹ Copyright is not *prima facie* absolute but *ab initio* constituted as a relation between authors and users.

This brief sketch of salient copyright doctrine permits us to observe that the pervasive proposition that not all copying is copyright infringement arises in two senses, one in respect to copyright subject matter and the other in respect to copyright scope.

As we noted at the outset, only copying of copyright subject matter is actionable. All other copying is lawful. But we can now add that this is less an instance of user rights than an offshoot of the demarcation of the boundaries of copyright law accomplished through the category of subject matter. The free availability of mousetraps or of phone directories, like that of ideas or of merged expression, indicates not rights of use in respect of copyright subject matter but the absence of copyright subject matter to begin with. When I copy your mousetrap or adopt your ideas, I do not rely on copyright user rights to sustain the legitimacy of my acts, any more than you reach for the Copyright Act to vindicate your rights when I fail to live up to an actionable promise, when I refuse to deliver the chattel of which I am in possession as your bailee, or when I negligently damage your property. From this point of view, the threshold function of originality doctrine is none other than to make the determination that absence of copyright subject matter spells absence of the applicability of copyright legislation, not only of author rights but also of user rights. Copying a mousetrap engages neither copyright nor, therefore, user rights.

¹⁹ CCH v Law Society 2004 S.C.C. 13, at [48].

User rights can and do arise, under the rubric of scope, once the originality threshold has been crossed. At this point, the proposition that not all copying is actionable specifies not the inapplicability of copyright legislation but the limits of the zone of exclusivity held by the copyright holder. These limits are but the corollary (or, more precisely, the mirror image) of rights of use in respect of copyright subject matter held by others; that is, user rights properly so-called. Copying falling outside the purview of the copyright holder's exclusive right of reproduction, for example, does not give rise to liability. This is a matter of scope, and not subject matter, because it involves non-actionable copying of copyright subject matter. The inquiry addresses not the question whether copyright subject matter obtains but rather the limits (or scope) of the right held in respect of that subject matter. Insubstantial copying may be regarded as an obvious example of a scope limitation and, of course, fair dealing is the paradigmatic instance of non-infringing unauthorised copying of copyright subject matter. Whereas subject matter determinations specify the limits of copyright, scope determinations specify limits in copyright. User rights pertain to the latter, not the former.

In short, the elementary proposition that not all copying is actionable or, to put it otherwise, that only wrongful copying is actionable, is already an affirmation of user rights. To say "wrongful copying" is already to say that the wrong is not in copying as such but in the determination of whether it falls within the exclusive prerogative granted to the copyright holder. The mere physical act of copying copyright subject matter does not per se give rise to liability. Any other construal is inconsistent with the view that there is such a thing as user rights, that is, unauthorised lawful copying of copyright subject matter. It can certainly come as no surprise that an actionable copy is not a physical but a juridical determination.

III. THE WORK IN ANY MATERIAL FORM

Section 3(1) of the Copyright Act 1985 defines the meaning of copyright. The section clearly distinguishes between a "work" and its "material form". It provides that "copyright, in relation to a work, means the sole right to ... reproduce the work ... in any material form whatever". The language parallels that of section 17(2) of the United Kingdom Copyright, Designs and Patents Act 1988: "Copying in relation to a literary, dramatic, musical or artistic work means reproducing the work in any material form." It can be traced back to section 1(2) of the United Kingdom Copyright Act 1911: "copyright' means the sole right to ... reproduce the work ... in any material form whatsoever." Remarkably, the distinction between work and material form remains largely undeveloped in both copyright jurisprudence and copyright scholarship. This is astonishing.

It is astonishing for several reasons. First, the distinction plainly leaps out of the very surface of the provision that defines the meaning of a core right, the right of reproduction, that the statute affirms. No account of the import of the provision can possibly stand in the absence of an understanding of the distinction between a work and its material form.

Second, because the distinction is part and parcel of the definition of copyright, it must be understood as pervading the Copyright Act 1985 as a whole. To be sure, the distinction facially pertains to the right of reproduction, neither the right of public performance or communication to the public, nor that of first publication, but all three aspects of copyright as a whole are defined in a single provision, suggesting that assuming the independence or autonomy of each of its three core constitutive rights is by no means a self-evident approach.²⁰ Far more plausible is the view that the distinction between the work and its material form is rather a dimension of the increasing specification in modern copyright law of copyright subject matter (that is, the work) as original expression distinguished and notionally distinguishable from the varied substrata or media (whether material or otherwise) in which it may appear. In short, the distinction is as involved in the finding that a broadcast is the same as a live performance, as in the finding that an aquatint is the same as a digital photograph. With this in mind, we might venture that, because the conceptual nature of each core constitutive aspect of copyright implicates that of the others, the distinction or a variant thereof might be posited as in principle immanent in the statute.

Third, the phrase "material form" has played a central role in recent SCC copyright jurisprudence. The phrase is said to be the statutory anchor of the principle of technological neutrality, a principle affirmed as indispensable to our understanding of the conflicted relation between copyright law and the digital environment.²¹ This is admittedly somewhat surprising, not least because public performance or communication to the public, saliently implicated in digitisation, does not self-evidently require material form. Perhaps the SCC's recurrent stance is but its way to work through a latent

Section 3(1) in relevant part reads: "For the purposes of this Act, copyright, in relation to a work, means the sole right to produce or reproduce the work or any substantial part thereof in public or, if the work is unpublished, to publish the work or any substantial part thereof' (emphasis in original). Section 3(1) goes to enumerate in subsections (a) to (j) acts "included" in copyright, such as, for example, (a) the translation of the work or (f) the communication of the work to the public by telecommunication. In ESA at paragraph 42 the SCC holds that the enumerated acts are to be read and interpreted not as distinct and separate rights but as instances or illustrations of the three core rights of reproduction, performance in public and first publication: "This definition of 'copyright' is exhaustive, as the term 'means' confines its scope. The paragraph concludes by stating that copyright 'includes' several other rights, set out in subsections (a) through (j) [now (a) through (j)]. As a result, the rights in the introductory paragraph provide the basic structure of copyright. The enumerated rights listed in the subsequent subparagraphs are simply illustrative."

²¹ Robertson v Thomson Corp., 2006 S.C.C. 43, at [49]; ESA v SOCAN, 2012 S.C.C. 34, at [5]; CBC v SODRAC 2015 S.C.C. 57, at [47], [149].

intuition that the distinction between the work and its material form in respect of the right of reproduction is but an instance of a generalisable and progressive specification of the radically expressive nature of copyright subject matter in modern copyright law. Whichever the case, it remains surprising that when accorded the task of anchoring the principle of technological neutrality, the phrase is nevertheless routinely used without sufficiently significant reference to the distinction between the work and its material form in which the phrase appears and from which it derives its meaning. It is as if we have rushed headlong to resolve an urgent predicament without discussing a fundamental distinction that leaps out of the text of the statute intended to guide us.

The first observation to make about section 3(1) is that it defines copyright "in relation to a work". This is plain enough. It reminds us that copyright is not a right at large but a right in relation to specific subject matter. The subject matter of the right is addressed in section 5(1) of the Act: "[C] opyright shall subsist ... in every original literary, dramatic, musical and artistic work." This, too, is plain enough. It reminds us that originality is the sine qua non of protection in modern copyright. It is less frequently noted that nothing in section 5(1) remotely suggests that the material form of a work is copyright subject matter. The phrase "material form" does not appear in the provision. Moreover, because section 3(1) defines copyright "in relation to a work", there is no possible interpretation of the phrase "material form" in section (3)1 that can conclude that the material form of a work is copyright subject matter. It is true, of course, that section 3(1) captures the work in any material form. But the point is precisely that section 3(1) captures the work in any material form, not the material form as such of the work. Similarly, section 3(2) of the United Kingdom Copyright, Designs and Patents Act 1988 provides that "[c]opyright does not subsist in a literary, dramatic or musical work unless and until it is recorded, in writing or otherwise", such that the recording is a prerequisite for copyright subsistence but not for the existence of the subject matter protected.²² In a word, materiality per se is not copyright subject matter.

It simply cannot be the case that conceived as a physical object or chattel – to use the language of property law – the material form of the work is copyright subject matter. Assume, for example, that you write a poem using my ink and paper. You hold the copyright in the poem. I hold the property right in my chattels. If I reproduce your poem, I infringe your copyright. Your copyright claim succeeds. It is not a defence for me to say that your poem is written with my ink on my paper. My property does not entitle me to your copyright.²³ My ownership of the material form of the work does not grant me any right to the work as copyright

²² See Hadley and Others v Kemp and Another [1999] E.M.L.R. 589, 599–600, 638.

subject matter; that is, to the work as a work. By the same token, if you refuse to hand me back my ink and paper, you infringe my property right. My claim in detinue succeeds. Your copyright in the poem does not entitle you to my property. You do not get to keep my ink and paper just because you have used them to write your poem. Your copyright is the sole right to reproduce your work – that is, your poem as original expression – in any material form. But it is not a right over the material form as such, considered in its bare proprietary materiality. It is the work defined as original expression, not its material form, that is copyright subject matter. The significance of the material form of a work is radically derivative. It is strictly as the materialisation of the work, but not in its own right, that the material form has copyright significance. By the same token, it is strictly the work as a work, and not as material form, that attracts copyright protection.

A brief excursus into the fixation requirement, albeit not a universal feature of copyright law,²⁴ can nonetheless serve to formulate the point more precisely. Fixation provides that "for copyright to subsist in a 'work' it must be expressed to some extent at least in some material form, capable of identification and having more or less permanent endurance". 25 Copyright subsists in a work that, as such, must meet the originality threshold. That is, copyright subsists in original expression. For this original expression to attract copyright protection it must be fixed in material form. But the material form in which the work is fixed is not copyright subject matter. Fixation is a condition precedent of protection. It is not an aspect of the protected subject matter. Originality and fixation are both threshold categories, guarding the entrance to copyright territory, but not in the same sense. Originality tells us that a poem, not a phone directory or a mousetrap, attracts copyright. Fixation tells us that the poem will not be protected unless it is written. Originality constitutes what copyright protects. Fixation provides that such protection will not arise in the absence of material form.

If, having written your poem using my ink and paper, you hand my property back to me when I request it, and, in a capricious exercise of my property rights, I tear up the material form of your work into several hundred unrecognisable pieces, I neither infringe your copyright nor extinguish it. Once your copyright has come into existence, it will subsist for a specified

63: "The Act nowhere specifies that fixation is a general condition of protection."

Article 1(2) of the Berne Convention for the Protection of Literary and Artistic Works (as amended on September 28, 1979): "It shall, however, be a matter for legislation in the countries of the Union to prescribe that works in general or in any specified categories of works shall not be protected unless they have been fixed in some material form." For an international survey and analysis, see Y. Gendreau, "The Criterion of Fixation in Copyright Law" (1994) 159 Revue Internationale Du Droit D'Auteur 110.
 Canadian Admiral Corp. v Rediffusion Inc. [1954] Ex. C.R. 382, at [28]. The SCC restates the requirement in CCH v Law Society 2004 S.C.C. 13, at [8]: "It flows from the fact that copyright only protects the expression of ideas that a work must also be fixed in material form to attract copyright protection."
 But while well-settled in Canadian copyright, the fact that copyright protects expression, not idea, does not logically entail a fixation requirement. For discussion, see D. Vaver, Copyright Law (Toronto 2000),

period. It will have a limited duration. If, before its expiry, I write your poem down from memory on another piece of paper, I reproduce your work in violation of your subsisting copyright. If I recite your poem at a public function, I perform the work in public in violation of your subsisting copyright. If I make copies available to the public before you do, I publish or distribute your work in violation of your subsisting copyright. While copyright will not arise unless the work is fixed in material form, copyright subsists in relation to a work and in relation to nothing but a work. The doctrine of fixation thus confirms the fundamental distinction, itself flowing from the doctrine of originality, between a work and its material form. Precisely because fixation in material form is a condition precedent of protection, and not the subject matter protected, fixation confirms that copyright subject matter is through and through original expression and nothing but original expression, regardless of the form or medium (whether material or otherwise) in which that original expression happens to appear in any given instance.

It is worth emphasising that the point here is not only that the material form of the work is not copyright subject matter but also, and by the same token, that it cannot be. Viewed as a work of authorship, a sculpture neither is nor can be the stone that houses it. Of course, there is no such thing as a sculptural work of authorship in the absence of (say) stone, but it does not follow either that the work of authorship is the stone, or even that the work of authorship is inseparable from the stone. Copyright subject matter is and must be other than its material form. This is in fact a logical condition of the possibility of copying. The proposition that a work can be copied, that is, that it can be multiplied, presupposes the work as a general category capable of existing in and through particular instantiations. It follows that to equate the work with its instantiation is to lose the possibility of copying. There is no such thing as copyright nominalism. In the absence of the (posited) juridical reality of the work as a general category, there is no such thing as copying. Thus, for example, if Duchamp were to say that the Fountain is nothing but its material form, he would be wrong, and copying his work would still amount to copyright infringement even if Duchamp, in the name of art, would opt not to sue.

Because the material form of the work is not copyright subject matter, it cannot be within the scope, for example, of the right of reproduction. In other words, the distinction between a work and its material form suggests the inference that unauthorised use of the material form of a work, when in the absence of unauthorised use of the work as a work, does not and cannot attract liability. To be sure, at least at first sight, the inference, even if logically sound, cannot help but appear at best peculiar, at worse entirely vacuous or unintelligible. Thinking through the possibility of reproducing the material form of a work, but not the work as such, seems futile. In what

sense, after all, could it possibly be the case that copying the material form of the work does not *eo ipso* amount to copying the work?

The operations of digital technology in fact routinely instantiate that possibility. In SOCAN v Canadian Association of Internet Providers (hereafter, SOCAN),²⁶ for example, the SCC considered whether caching – involving copying necessary to the efficient operation of the Internet – gives rise to liability.²⁷ SOCAN addressed, inter alia, the copyright liability under the right of communication to the public by telecommunication of an Internet Service Provider (ISP) in its role as intermediary between content providers and end users. In response to the allegation, the Canadian Association of Internet Providers (CAIP) raised section 2.4(1)(b) of the Copyright Act 1985, which provides that

[f]or the purposes of communication to the public by telecommunication, a person whose only act in respect of the communication of a work or other subject-matter to the public consists of providing the means of telecommunication *necessary* for another person to so communicate the work or other subject-matter does not communicate the work or other subject-matter to the public. (Emphasis added)

That is, CAIP asserted the role of an ISP as a mere conduit. The Federal Court of Appeal (FCA) found that cache copying falls outside the scope of section 2.4(1), on the grounds that Internet communication would still be practicable, even if less efficient, in the absence of caching, such that caching is not "necessary" in the relevant sense. The SCC reversed the FCA on this point. It interpreted section 2.4(1)(b) as evidence of the legislature's intent to secure the efficient operation of the Internet, finding that, as necessary to the efficiency of Internet communication, cache copying does fall within the meaning of the provision.²⁸ The SCC held that caching is "dictated by the need to deliver faster and more economic service, and should not, when undertaken only for such technical reasons, attract copyright liability."²⁹ Caching amounts to a technique involving copying but not to actionable copying per se.³⁰

²⁶ SOCAN v Canadian Association of Internet Providers 2004 S.C.C. 45.

²⁷ Ibid., at [23]: "When an end user visits a Web site, the packets of data needed to transmit the requested information will come initially from the host server where the files for this site are stored. As they pass through the hands of an Internet Service Provider, a temporary copy may be made and stored on its server. This is a cache copy. If another user wants to visit this page shortly thereafter, using the same Internet Service Provider, the information may be transmitted to the subsequent user either directly from the Web site or from what is kept in the cache copy. The practice of creating 'caches' of data speeds up the transmission and lowers the cost."

²⁸ Ibid., at [115]: "The creation of a 'cache' copy, after all, is a serendipitous consequence of improvements in Internet technology, is content neutral, and in light of section 2.4(1)(b) of the Act ought not to have any legal bearing on the communication between the content provider and the end user" (emphasis in original).

²⁹ Ibid., at [116].

³⁰ It can come as no surprise that, in its description of the judicial history of the case, the SCC explicitly highlights at [28] that "[t]he parties did not frame an issue in relation to infringement of the right of reproduction, and its role, if any, did not play a significant part in the Board's decision". At no point

I want to draw three related observations from the decision that will permit us to develop the application of the distinction between a work and its material form to the digital context and to the elaboration of the principle of technological neutrality. First, the SCC underlined that the section 2.4(1)(b) did not exempt an ISP from liability. That is, the provision states not that the activities of an ISP as an intermediary fall under an exception to infringement but rather that no infringement takes place ab initio.31 The point is not that caching is lawful because it is an act of reproduction attracting no liability under the right of communication to the public by telecommunication. Rather, the point is that, albeit an instance of copying, caching fails to attract liability because it is a merely technical process. Just as the ISP is, in respect of the right of communication to the public, nothing but a mere conduit attracting no liability, so is caching, in respect of the right of reproduction, nothing but a mere technical process attracting no liability. The lawfulness of caching is not a legislative undoing of otherwise wrongful copying: "[s]ection 2.4(1)(b) is not a loophole but an important element of the balance struck by the statutory copyright scheme."32 Following CCH, then, SOCAN confirms the elementary proposition that there is such a thing as unauthorised non-infringing use of copyright subject matter: not all copying is actionable.

Second, and more significantly, SOCAN brings into sharp relief a fundamental peculiarity of digital technology when examined from a copyright perspective. We might say that caching fails to attract liability because it involves uses of copyright subject matter for merely technical purposes independent of its expressive significance. Keeping the copyright balance in mind, we might be tempted to add that caching is a user right attendant on the scope of the relevant copyright. But while helpful as far as it goes,

in the judicial history of SOCAN v Canadian Association of Internet Providers 2004 S.C.C. 45, from the decision of the Copyright Board of Canada through that of the Federal Court of Appeal and finally that of the SCC, does any so-called reproduction involved in caching emerge from its technically ancillary and merely derivative role relative to the central issue of communication or lack thereof. There is no actionable reproduction any more than there is actionable communication in SOCAN v Canadian Association of Internet Providers 2004 S.C.C. 45. Thus, in his concurrence in Euro-Excellence Inc. v Kraft Canada Inc. 2007 S.C.C. 37, at [81], Bastarache J. cited SOCAN v Canadian Association of Internet Providers 2004 S.C.C. 45 for the proposition that "[w]hile 'caching' is certainly an instance of substantial reproduction, it is a technical process only; as such it does not consist in an attempt to appropriate the legit imate economic interests of the copyright holder, and therefore does not constitute infringement". Consider also Abella J.'s discussion of SOCAN v Canadian Association of Internet Providers 2004 S.C.C. 45 in her dissent in CBC v SODRAC 2015 S.C.C. 57, at [154], quoting with approval C.J. Hutchison, "Technological Neutrality Explained and Applied to CBC v. SODRAC" (2015) 13 Canadian Journal of Law and Technology 101, 114: "Incidental copies, in other words, were determined to lie outside the reproduction right as the interests of technological economy and efficiency trumped the making of mere technical copies that were imperceptible to an end user."

³¹ SOCAN v Canadian Association 2004 S.C.C. 45, at [87]: "Parliament did not say that the intermediaries are engaged in communication of copyright content but enjoy an immunity. Instead, section 2.4(1)(b) says that such intermediaries are deemed, for purposes of the Copyright Act, not to communicate the work to the public at all. Whether or not intermediaries are parties to the communication for legal purposes other than copyright is an issue that will have to be decided when it arises" (emphases in original).
32 Ibid., at [89].

that formulation is inaccurate. More than that, it misses the point altogether. The SCC expressly tells us that caching is in fact not an instance of subject matter use. Caching fails to attract liability not because it amounts to a use falling within the rubric of user rights, but because it is not a use at all: "[t] his appeal is only tangentially related to holding 'the balance' between creators and users. Section 2.4(1)(b) indicates that in Parliament's view, Internet intermediaries are not 'users' at all, at least for the purposes of the Copyright Act."³³ An ISP does not communicate because it is a mere conduit, and it does not reproduce because it merely operates with technically required cache copies innocent of expressive significance. SOCAN is thus not about limited scope but about want of subject matter. It is not about permitted use of copyright subject matter but about absence of use of copyright subject matter as such.

Third, it may well be possible to read section 2.4(1)(b) as a sui generis provision specifically and exclusively attendant on Internet intermediaries, as the result, so to speak, of particularly successful lobbying and/or of a legislature markedly attuned to the exigencies of the Internet. That is the sense in which, at least in part, Binnie J. in SOCAN appears to have deployed the provision when he emphasises the public interest in permitting an ISP to operate without the threat of copyright infringement.³⁴ But even a narrow reading of the provision could not fail to observe that, doctrinally grasped, its effect is that, as an instance of copying not involving copyright subject matter, caching is not a use because it does not fall within the meaning of sections 3(1) and 5(1) of the Copyright Act 1985. It does not fall within section 5(1) because it amounts merely to use of technically required likenesses or semblances, but not of copyright subject matter in its actionable significance as original expression. Caching is not a use of an author's originality. It does not fall within section 3(1) because the right affirmed in that section has no application whatsoever in the absence of (any use of) copyright subject matter. The merely physical (or digital) act of copying is not juridically cognisable for the purposes of the Copyright Act 1985. In short, formulated in section 3(1) terms, caching fails to attract liability because it amounts to a use of the material form of the work but not of the work as a work.

On this view, the analysis of section 2.4(1)(b) in *SOCAN* makes clear, through the caching example, that the digital context renders the elementary distinction between the work and its material form in section 3(1) particularly visible. Unsurprisingly, the distinction is also helpful in other contexts. Before proceeding to develop its import through further examples, it will be helpful to assess, even if briefly, its relation to the current state of copyright law and caching in Canada and the European Union.

 ³³ Ibid., at [132].
 34 Ibid., at [114].

Developments in Canadian copyright law after *SOCAN* at once support and challenge the foregoing gloss of the import of the distinction between the work and its material form in section 3(1). Added to the Copyright Act 1985 in 2012, eight years after *SOCAN*, section 31.1(2) provides that caching a work or other subject matter by an ISP "to make the telecommunication more efficient does not, by virtue of that act alone, infringe copyright in the work or other subject matter". Caching is not copyright significant *ab initio*. Section 31.1(2) thus supports the view that caching is lawful as merely technical use implicating the work's material form but not the work as such.

At the same time, however, section 31.1(3) imposes conditions on the application of section 31.1(2), inter alia that any "directions" relating to the caching of the work specified by whoever made the work available for telecommunication through the Internet are "read and executed". These "directions" must be "specified in a manner consistent with industry practice" and "lend themselves to automated reading and execution". In other words, caching is unlawful when suitably specified directions prohibiting it obtain. These imposed conditions suggest that the lawfulness of caching is premised not on the non-actionable nature of caching as non-expressive use but on the absence of directions prohibiting it. Caching is lawful not because it is merely technical use of a work's material form but because it is deemed to be authorised unless directions to the contrary are properly specified.

The situation is by no means unambiguous. The Canadian ISP caching regime grants a copyright holder some sort of cognisable copyright interest, albeit a notably curtailed and weakened one, in the work's material form even if used technically and not expressively. Another way to say this is to observe that sections 31.1(2) and (3) grant an ISP a kind of statutory licence revocable at will, through directions properly specified, by the person making the work available for telecommunication.

The implications of the Canadian ISP caching regime for the characterisation of the definition of the right of reproduction more generally are unclear. On the one hand, we may surmise that the lawfulness of caching appears as an exception to the right of reproduction widely conceived as inclusive even of non-expressive use of the work's material form. Because it suggests a statutorily excused wrong rather than the absence of wrong *ab initio*, this view runs counter to the overall constitutive grammar of balance and user rights well-entrenched in Canadian copyright jurisprudence. On the other hand, we may essay the view that the revocability of the lawfulness of caching at the copyright holder's behest is itself an exception to caching as an otherwise non-actionable merely technical use of a work's material form. This view is suggested by section 30.71 of the Copyright Act 1985, also added in 2012, providing that

[i]t is not an infringement of copyright to make a reproduction of a work or other subject matter if (a) the reproduction forms an essential part of a technological process; (b) the reproduction's only purpose is to facilitate a use that is not an infringement of copyright; and (c) the reproduction exists only for the duration of the technological process.

Section 30.71 thus suggests the view that the privilege of revoking the lawfulness of caching through specified directions is not generally operative but particular to the ISP caching regime.

We need not resolve these ambiguities to observe that their very presence insinuates that sections 31.1(2) and (3) of the ISP regime are not *eo ipso* unequivocally aligned with the momentous finding in *SOCAN*, rooted in section 2.4(1)(b), that for copyright purposes an ISP is not a user "*at all*".³⁵ It remains the case, however, that the position adopted in *SOCAN* affirms the constitutive definition of copyright subject matter as radically expressive in sections 3(1) and 5(1) of the Copyright Act 1985. Boldly put, this means that the 2012 ISP caching amendment falls short of the expressive core of copyright law.

The position in the European Union is less ambiguous. Article 2 of the Information Society Directive³⁶ affirms the exclusive right of authors in respect of their works "to authorise or prohibit direct or indirect, temporary or permanent reproduction by any means and in any form, in whole or in part". Conceived as an instance of temporary reproduction, caching thus falls plainly and squarely within the ambit of the right. Of course, Article 5(1) of the Directive exempts temporary acts of reproduction caught in Article 2, provided those acts are "transient or incidental [and] an integral and essential part of a technological process" whose sole purpose is to enable either "(a) transmission ... by an intermediary" or "(b) a lawful use", neither of which may have "independent economic significance". In that context, it can come as no surprise that scholars in Europe have repeatedly pointed out, persuasively in my view, that the definition of the right of reproduction as inclusive of caching (and other merely technical nonexpressive acts) is inconsistent with the fundamental purposes of copyright law generally and with core operations of the digital environment particularly.³⁷

³⁵ Ibid., at [132], emphasis added.

³⁶ Directive 2001/29/EC (OJ 2001 L 167 p.10).

³⁷ See e.g. B. Hugenholtz, "Caching and Copyright: The Right of Temporary Copying" (2000) 22 European Intellectual Property Review 482; M. Borghi, "Chasing Copyright Infringement in the Streaming Landscape" (2011) 42 International Review of Intellectual Property and Competition Law 316; S. Karapapa, *Private Copying* (Oxfordshire 2012), 116; S. Dusollier, "Realigning Economic Rights with Exploitation of Works: The Control of Authors over the Circulation of Works in the Public Sphere" in B. Hugenholtz (ed.), *Copyright Reconstructed: Rethinking Copyright's Economic Rights in a Time of Highly Dynamic Technological and Economic Change* (London 2018); A. Strowel, "Reconstructing the Reproduction and Communication to the Public Rights: How to Align Copyright with Its Fundamentals" in Hugenholtz, *Copyright Reconstructed*.

In Canada, the more extensive development of the grammar of balance and user rights adumbrates, even if by no means unambiguously, possibilities intimating a redefinition of the right of reproduction in the direction of copyright subject matter as radically expressive. This direction is exemplified in the treatment of caching in *SOCAN*, rendering visible the import of the distinction between the work and its material form for the analysis of the principle of technological neutrality and thus of the encounter between copyright and the digital environment more generally.³⁸ But the distinction is helpful in other contexts and in fact predates digitisation. We would not have expected otherwise from the proposition that the distinction affirms the radically expressive core of copyright subject matter as such.

Consider, for example, a patent specification containing diagrams disclosing the invention it claims. Assume that the diagrams are subject to copyright as artistic works, and that, because the invention is a reproduction of those diagrams in three-dimensional form, the manufacture of the invention in accordance with the disclosure in the specification infringes the copyright in the diagrams. Were that the case, it would follow inevitably that both during and after the expiration of the patent, the construction of the invention would attract copyright liability as a reproduction of the artistic work "in any material form". Even if we ignore the concurrent action of copyright and patent during the period of patent duration, the copyright in the artistic work would have the effect of extending the patentee's monopoly over the invention beyond that period, contrary to the operations of the patent system.³⁹ The difficulty admits of four possible solutions.

The first would involve ignoring the difficulty altogether. More precisely, it would involve resisting the issue of concurrent or extended protection as a difficulty to begin with. After all, nothing in either the copyright statute or the patent statute provides that the inclusion of a work of authorship in a patent specification invalidates an otherwise valid copyright. Thus, so the argument would go, until and unless the legislature provides that the three-dimensional reproduction of a two-dimensional artistic work included in a patent specification is not copyright infringement, the copyright must be held to subsist.

The second approach would involve the proposition that the inclusion of an otherwise copyrightable diagram in a patent specification amounts to an implicit abandonment of the copyright therein.⁴⁰ The scope of this deemed

³⁸ Strowel, in "Reconstructing the Reproduction and Communication to the Public Rights", provides a helpful list of implicated digital uses, including temporary copies, such as RAM copies, required to use a work or repair software; non-transitory copies made by Content Delivery Networks; copies made for indexing images, and searching the Internet or big data aggregates; copies needed to conduct text and data mining; copies made for checking mistakes and plagiarism; copies made for automatic translation

³⁹ The issue arises, for example, in the House of Lords decision in Catnic Components Ltd. and Another v Hill & Smith Ltd. [1982] R.P.C. 183.

This is the position adopted in ibid.

abandonment, or abandonment by law, as we might say, need extend no more than what is necessary to render the remaining copyright in the diagram consistent with the patent system. That is, the patentee would be deemed to abandon the copyright only to the extent that subsistence of the copyright would prolong the patentee's monopoly over the invention beyond the statutorily granted duration of the patent. Assertions of the copyright that do not have that effect (say, for example, the reproduction of the diagram as an ornamental poster) would remain within the exclusive purview of the copyright holder. But again, nothing in either the copyright statute or the patent statute clearly provides for deemed abandonment. To be sure, one might say that the patent bargain means precisely that the patentee receives the patent in exchange for the subsequent public availability of the invention, but this means nothing more than that the patentee cannot rely on the patent once the patent expires. The patent statute provides that the patent expires, but it certainly does not provide that any associated copyright (or, for that matter, any other rights) do so as well. Thus, for example, in Kirkbi AG v Ritvik Holdings Inc.,41 the SCC found that, upon the expiry of the patent, a former patentee could not seek to prolong the expired monopoly on the invention by asserting trade mark rights over the shape of the product as an indicator of source. But the SCC grounded its holding not on the basis of the patent statute but on the basis that the law of trade marks precludes trade mark rights over functional aspects of the product. In other words, it was the trade mark doctrine of functionality, not any construal of the patent bargain, that precluded the assertion of trade mark rights subsequent to the expiry of the patent.⁴²

The *Kirkbi* case thus suggests, *mutatis mutandis*, investigation of a copyright analogue to the trade mark doctrine of functionality. That is indeed the third approach to the problem before us. On this third approach, the copyright doctrine of merger would come to our aid. The view would be that, to the extent that the diagram in the specification amounts to sufficient disclosure under the law of patent, the diagram must be merged with the idea

⁴¹ 2005 S.C.C. 65.

It can come as no surprise that in Kirkbi v Ritvik 2005 S.C.C. 65, at [50], the SCC referred, inter alia, to the decision of the Court of Justice of the European Union (CJEU) in Case C-299/99, Koninklijke Philips Electronics NV v Remington Consumer Products Ltd. [2002] EU:C:2002:377, affirming, as does the doctrine of functionality in Canadian trade mark law, that the European law of trade marks precludes the registration of shapes "whose essential characteristics perform a technical function". See also Case C-48/09 P, Lego Juris v OHIM [2010] EU:C:2010:516, at [46]: "When the shape of a product merely incorporates the technical solution developed by the manufacturer of that product and patented by it, protection of that shape as a trade mark once the patent has expired would considerably and permanently reduce the opportunity for other undertakings to use that technical solution;" and [73]: "In its examination of the analysis carried out by the Cancellation Division, the Board placed particular emphasis on the inclusion of that element in Kirkbi's prior patents." Along similar lines, the UK Trade Marks Act 1994 addresses functionality in section 3(2). For discussion of functionality in trade mark law, see A. Kur, "Too Pretty to Protect? Trade Mark Law and the Enigma of Aesthetic Functionality" in J. Drexl et al. (eds.), Technology and Competition: Contributions in Honour of Hanns Ullrich (Brussels 2009), 139–59; M. McKenna, "(Dys)functionality" (2001) 48 Houston Law Review 823.

expressed, that is, with the invention it describes and claims. The finding of merger would thus operate as a finding that no copyright obtains in the diagram, in a manner analogous to the doctrine of functionality in the law of trade marks. There is no requirement in the law of patent, however, that a specification diagram be merged in the copyright sense with the invention it describes and claims. On the contrary, to the extent that the specification claims a monopoly beyond the particular embodiment of the invention it describes, merger is far from being a requirement, or even aspiration, of the sufficiency of the specification. The appeal to the merger doctrine to avoid the intrusion of copyright law into the operations of the patent system would thus be effective only in situations in which the diagram in the specification, considered in its putative significance as a work of authorship, happens to be an instance of merger. It as if only specifications drafted too narrowly, as it were with insufficient guile, would be caught.

The fourth approach to the issue strikes me as the most serviceable, far more economic or worthy of Occam than any of the other three. This is the approach embedded in the distinction in section 3(1) between a work and its material form. Manufacturing an invention described in a work of artistic authorship is a reproduction of the material form of the work but not of the work as a work. It is therefore non-actionable. It is not a use of the work in its expressive significance, its only and sole copyright significance. It is no more an infringement of the copyright in the artistic work than the making of a pie following the text of its recipe is an infringement of the copyright in the literary work.⁴³ It is not more a use at all than caching is a use in *SOCAN*

This fourth approach is superior to the first in that it finds at the core of the statutory text, in the provisions defining the nature of the right and its subject matter, the distinction the first approach declares absent. Sections 3(1) and 5(1) provide that copyright protects original expression, and nothing other than original expression, such that use of the work as a work in its only copyright-relevant expressive significance, but not use of the material form of the work in some technical or extra-expressive sense, attracts liability. Thus, in order to preclude copyright liability attaching to manufacturing an invention, this fourth approach need not wait for the legislature to say what it has already said. Along similar lines, the fourth approach is superior to the second approach because there is no need to imply an abandonment of a copyright over the material form a work which never in fact existed or could have, pursuant to sections 3(1) and 5(1), ever existed. Finally, the fourth approach is superior to the third in that it does not premise the preclusion of copyright liability on the contingency that the merger doctrine is

⁴³ Cuisinaire v S.W. Imports Ltd. [1969] S.C.R. 208, at [9], quoting Cuisinaire v Reed [1963] V.R. 719, 735: "Were the law otherwise ... everybody who made a rabbit pie in accordance with the recipe of Mrs. Beeton's Cookery Book would infringe the literary copyright in that book."

applicable. That is, it posits freedom from copyright liability, regardless of merger, as the absence of any cognisable use of copyright subject matter. In short, the fourth approach captures and sets forth as a general copyright principle affirmed in the statute the intuition embedded in the particular example of the artistic work in a patent specification.⁴⁴

In its conflicted decision in *British Leyland Motor Corporation Ltd. v Armstrong Patents Co. Ltd.* (hereafter, *British Leyland*),⁴⁵ the House of Lords found that unauthorised manufacture of an automobile exhaust pipe infringed the copyright in the drawings illustrating the product. The defendant's exhaust pipe was held to be an actionable three-dimensional reproduction of the plaintiff's two-dimensional drawing.

Three of the four majority judgments in *British Leyland* formulate the holding with remarkably unabashed and undisguised reluctance. In a brief judgment voicing "total agreement" with Lord Templeman's comprehensive judgment, for example, Lord Scarman exclaimed that the case "illustrates that more than redrafting with a view to clarification is needed: nothing less than an overhaul of some of the principles of the modern extended law is necessary". ⁴⁶ Lord Scarman hoped that the review of the Copyright Act 1956 then in progress would "lead to legislation to bring the law back within the limits intended by Parliament". ⁴⁷ He emphasised that the review should make explicit a "principle latent in our law" that the "manufacturer of an article such as a motor vehicle or other 'consumer durable' cannot by the exercise of copyright preclude the user of the article from access to a free market for spares necessary to maintain it in good working order". ⁴⁸

Lord Templeman's judgment is equally unambiguous, albeit stated at an even higher level of generality: "I agree with the submissions made on behalf of [defendant] Armstrong that Parliament did not intend the protection afforded by copyright to a drawing should be capable of exploitation so as to prevent the reproduction of a functional object depicted in a drawing." "But," Lord Templeman added, "there is a good deal of legislative and judicial history to be considered." ⁴⁹ In the result, given the reading of the right

On this view, legislation addressing the issue is rendered as development/elaboration of the principle. Consider in this light, for example, sections 64(1) and 64.1 of the Copyright Act 1985, addressing the relation between "work", "useful article" and "utilitarian function". See also Wendy J. Gordon's immensely helpful discussion of § 113(b) of the US Copyright Act, 17 U.S.C. § 113(b) in W. Gordon, "How Oracle Erred: The Use/Explanation Distinction and the Future of Computer Copyright" in Okediji (ed.), Limitations and Exceptions, ch. 13, 375–428. For an application of the distinction between physical embodiment and protectable subject matter to patent law, see T. Syed, "Reconstructing Patent Eligibility" (2021) 70 Am. U. Int'l L. Rev. 1937.

⁴⁵ British Leyland Motor Corporation Ltd. v Armstrong Patents Co. Ltd. [1986] A.C. 577.

⁴⁶ Ibid., at [403]–[404].

⁴⁷ Ibid., at [404C]. ⁴⁸ Ibid., at [404D].

⁴⁹ Ibid., at [421D]. See also Lord Bridge of Harwich, at [412H]-[413A]: "In these circumstances, even if a more persuasive argument for rejecting the principle which it [precedent favouring the plaintiff's position] applies could be derived from the language of the Act of 1956, I should think this clearly to be

of reproduction as inclusive of the manufacture of an exhaust pipe, Lord Templeman invoked extra-copyright imperatives to avoid the defendant's liability: "In these circumstances, in my opinion, BL [British Leyland] are not entitled to assert the copyright in their drawing of an exhaust pipe in order to defeat the right of the purchaser to repair his car. The exploitation of copyright law for purposes which were not intended has gone far enough." ⁵⁰

I wish to comment neither on the discomfort involved in an interpretation of the statutory text in a manner admittedly contrary to its apprehended purpose, nor on the viability of the ensuing invocation of extra-copyright imperatives to undo the result mandated thereby. It suffices to note that the House of Lords found itself awkwardly ensnared between a reading of the statute it disfavoured in principle and a no less cumbersome judicially created exception to that reading. The majority in *British Leyland* opted for the latter, while Lord Griffiths' dissent essayed a mitigation of the former. My point is only that the fundamental principle required to transcend the impasse is perhaps not as "latent" as the House of Lords appears to have assumed. Copyright protects the form of expression as such, neither its material form nor the content expressed. One need not ascertain an Archimedean point to move the cosmos in order to observe that an exhaust pipe is not a use of a drawing as a work in its expressive significance. My view is that the House of Lords ought to have heeded its reluctance

a case where it must be left to legislative action to make any change in the law that may be appropriate. But I must add that I regard the present law as highly unsatisfactory." Lord Bridge of Harwich at 413C added that were it a case involving infringing copies of a protected industrial design, awarding conversion damages along copyright lines would be "irrationally generous to the designer and punitive to the infringer". He found it at 413B "difficult to suppose that a rational legislator" would proceed in that manner.

British Leyland v Armstrong Patents [1986] A.C. 577, 433A-B. Lord Scarman, Lord Templeman and Lord Bridge of Harwich concurred on the view that the right to repair held by an automobile purchaser defeats the copyright in the drawing. Lord Edmund-Davies, too, concurred, but not without gesturing at 405D towards Lord Griffiths's dissent on the issue: "At the end of the day (I should perhaps say, at the end of very many days), I favour most the 'spare parts exception' upheld in the speeches of the noble and learned Lords, Lords Bridge of Harwich and Templeman. I nevertheless share to a considerable extent the misgivings eloquently expressed by the noble and learned Lord, Lord Griffiths, on this topic." Lord Griffiths refused at 443A-D "the creation of a spare parts exception to the law of copyright". He found for the defendant on copyright grounds; specifically, that indirect copying in the circumstances does not give rise to copyright liability. Armstrong had manufactured the exhaust pipe by replicating British Leyland's exhaust pipe without having seen the diagram: "I would, therefore, hold that 'reproducing' in section 3(5) should not be given the extended meaning of 'indirect copying' in cases in which the mechanical drawing or blueprint is of a purely functional object Applying this definition I would hold that Armstrong have not infringed the copyright in the mechanical drawings by copying the exhaust pipe without seeing or receiving any assistance from the drawings and for this reason I would allow this appeal If I had been persuaded that on its true construction the Copyright Act 1956 extended the protection of indirect copying to all mechanical drawings and blueprints I should find the greatest difficulty in refusing to enforce that protection because it might, in some circumstances, make it more difficult or expensive for the owner of a machine to obtain a spare part." In Canon Kabushiki Kaisha v Green Cartridge Company (Hong Kong) Ltd. [1997] A.C. 728, the Privy Council addressed the spare parts exception with suspicion, narrowing it scope to situations in which the monopolistic effects of copyright in diagrams is akin to that in British Leyland v Armstrong Patents [1986] A.C. 577, thus enabling the finding of copyright liability in the manufacture by reverse engineering of parts of the cartridges used in photocopiers and laser printers.

more assiduously. It was in the circumstances a sentiment as prosaically predictable as the exaggeration that copyright law protects automobile parts is decisively counterintuitive.

I have elsewhere described the fundamental principle at issue as "non-use", seeking to denote with that term the proposition that, unlike fair use, which involves use of copyright subject matter, and thus pertains to the limited scope of the right over that subject matter, nonuse involves use of the material form of the work but not of copyright subject matter as such. ⁵¹ I developed that proposition through an analysis of the classic Supreme Court of the United States (SCOTUS) decision in *Baker v Selden* (hereafter, *Baker*). ⁵² As we shall presently see, the principle is also operative in the classic English Court of Appeal decision in *Hollinrake v Truswell* (hereafter, *Hollinrake*). ⁵³

In *Baker*, the plaintiff devised a novel accounting system and explained it in a book. The book made use of accounting forms to explain and illustrate the system. The explanatory forms in the book were the very same forms required to operate the novel accounting system. The defendant copied the forms to operate and market the accounting system. The plaintiff sued for copyright infringement.

The SCOTUS held that no copyright liability attached to the defendant's copying of the accounting forms. It observed that the accounting forms appear in two different guises. On the one hand, the forms appear as aspects of the accounting system, and in that sense as tools. On the other, they appear as aspects of the book explaining the system, and in that sense as works. Distinguishing clearly between these guises is crucial to the resolution of the case. More precisely, the evident fact that identical patterns of ink on a page ("lines and figures") appear in each of these guises is irrelevant to the fundamental distinction between the forms as tools and the forms as works.⁵⁴ The SCOTUS held that the defendant's use of the tools as an aspect of the operation of the accounting system is not a use of the works as aspects of the explanation of the system. No copyright liability attaches to the defendant's copying of the forms as tools for accounting purposes, notwithstanding the fact that, had the defendant copied the forms as works for explanatory purposes, copyright liability would

⁵¹ A. Drassinower, What's Wrong with Copying? (Cambridge 2015).

⁵² 101 U.S. 99 (1879).

^{53 [1894] 3} Ch. 420 (C.A.).

⁵⁴ Baker v Selden 101 U.S. 99, at [103]: "By publishing a book without getting a patent for the art, the latter is given to the public. The fact that the art described in the book by illustrations of lines and figures which are reproduced in practice in the application of the art makes no difference. Those illustrations are the mere language employed by the author to convey his ideas more clearly. Had he used words of description instead of diagrams (which merely stand in the place of words), there could not be the slightest doubt that others, applying the art to practical use, might lawfully draw the lines and diagrams which were in the author's mind, and which he thus described by words in his book."

have indeed attached.⁵⁵ In a word, the defendant copied the material form of the work but not the work as such.

The fundamental copyright principle informing *Baker* is clear and uncontroversial: a work of authorship describing an invention does not sustain a claim of exclusivity over the invention itself, any more than, more generally, the form of an author's expression can sustain a claim of exclusivity over the content expressed. Prima facie, this may seem to be an instance of the idea/expression dichotomy. Yet the way in which the SCOTUS deals with and overturns the lower Circuit Court's holding in favour of the plaintiff, however, is richly instructive in this respect. The SCOTUS points out that the "plausibility" of the plaintiff's submission in the eyes of the Circuit Court arises from a "confusion of ideas" resulting from the "peculiar nature" of the facts. 56 The peculiarity is none other than the twofold guise in which the forms appear, on the one hand as works explanatory of the accounting method, on the other as tools part and parcel of the method itself. This peculiarity obscures the distinction between the plaintiff as author and the plaintiff as inventor, thus deceptively lending plausibility to the plaintiff's submission that his standing as author can somehow anchor a claim over the accounting system and/or its operation. The SCOTUS thus frames its judgment as an undoing of the confusion of ideas anchoring this overflow, so to speak, of the plaintiff's recognised authorship onto subject matter not recognised under copyright law.

Baker is not an idea/expression case; that is, it is not a case in which the defendant escapes liability because she adopted the plaintiff's idea but did not copy expression. On the contrary, there is no doubt that the defendant copied the plaintiff's forms. Nor is Baker a merger case; that is, it is not a case in which the defendant escapes liability because no copyright obtains. On the contrary, there is no doubt that the plaintiff authored a work, that the forms are subject to copyright as a substantial part of the work, and that, therefore, reproduction of the forms in a rival publication, for example, would infringe the copyright therein. The SCOTUS does not reverse the Circuit Court's judgment by simply asserting its opposite, thus denying in toto that copyright obtains.⁵⁷ Rather, the SCOTUS affirms the copyright

 ⁵⁵ Ibid., at [103]: "And where the art cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public; not given for the purpose of publication in other works explanatory of the art, but for the purpose of practical application." Ibid., at [104]: "The use by another of the same methods of statement, whether in words or illustrations, in a book published for teaching the art, would undoubtedly be an infringement of the copyright."
 56 Ibid., at [104]–[105].

⁵⁷ Of course, appeal to merger is not the only way to deny copyright in toto in Baker v Selden 101 U.S. 99. See Pamela Samuelson's reading of Baker v Selden 101 U.S. 99 precluding copyright in the accounting forms as an affirmation of the exclusion of systems and processes from copyrightability, P. Samuelson, "Why Copyright Law Excludes Systems and Processes from the Scope of Its Protection" (2007) 85 Tex. L. Rev. 1921. See also Wendy Gordon's nuanced reading of Baker v Selden 101 U.S. 99 as an affirmation of the explanation/use distinction in Gordon, "How Oracle Erred".

over the work but refuses its overflow onto the accounting system. The Circuit Court's error involved not the grant of the copyright but the confusion of protection of the forms as a work with protection of the forms as a tool. The Circuit Court got duped by the peculiarity of the facts of the case into granting protection over non-expressive use of the forms. The SCOTUS, by contrast, distinguished non-expressive use of the material form of the work from use of the work as a work. Simply put, the SCOTUS affirmed the uncontroversial and well-settled principle that copyright protects original expression and nothing but original expression. A work of authorship is a mode of conveying meaning, a form of expression. Duchamp's *Fountain* is certainly subject to copyright, but that gives him no monopoly over any kind of urinal. The expression as expression confers no right over the urinal as urinal. A urinal is not a work. Nothing in use of a urinal can plausibly engage fair dealing considerations.

In Hollinrake, the English Court of Appeal invokes Baker to address and reject a copyright claim over a sleeve chart used for measuring purposes in dressmaking, consisting of a piece of cardboard, curved so as to represent the parts of the arm above and below the elbow, on which were printed words, lines, figures and scales of inches and half-inches. To be sure, Hollinrake does not display the peculiarity distinctive of Baker, whereby the subject matter asserted exhibits twofold significance, on the one hand as a work and on the other as a tool. The plaintiff in Hollinrake does not claim copyright in an explanation of the measuring apparatus but rather in the apparatus itself as a "chart" falling within the meaning of copyright subject matter. The English Court of Appeal denies that the sleeve chart is a chart, or that the words, lines and figures printed on it are copyright subject matter. The words, lines and figures do not explain the measuring apparatus but are rather inseparable from it, both in the sense that the piece of curved cardboard would not be serviceable as a measuring apparatus without them, and also in the sense that the words, lines and figures convey anything intelligible only when printed on the cardboard and thus only as an integral part of the apparatus.⁵⁸ We may say that it is as if the words, lines and figures were a lever on a machine.

Unlike *Baker*, then, there is no copyright of any kind in *Hollinrake*, and thus no need to affirm the copyright in an explanation while denying copyright in a use of aspects thereof as a tool. Nonetheless, *Hollinrake* affirms the central proposition that a work of authorship is a mode of conveying

⁵⁸ Hollinrake v Truswell [1894] 3 Ch. 420, 424 (C.A.) (Lord Herschell L.C.): "They [the words or figures upon the sleeve chart] are intended to be used, and can only be of use, in connection with that upon which they are inscribed. They are not merely directions for the use of the cardboard, which is in truth a measuring apparatus, but they are a part of that very apparatus itself, without which it cannot be used, and except in connection with which they are absolutely useless."

meaning, a form of expression.⁵⁹ Thus, it follows that (a) a work of authorship describing an art confers no copyright on the art itself, and that, by way of corollary, (b) when, as in *Baker*, otherwise copyrightable aspects of a description are involved in the application of the art described, the copyright in the description *as* description remains operative while not overflowing onto the art itself.⁶⁰ We may deduce that, had the plaintiff in *Hollinrake* held a copyright in a description that included *verbatim* the very words and figures on the sleeve chart, the defendant would have still escaped liability in that his duplication of the words and figures as aspects of the sleeve chart is not a reproduction of copyright subject matter. In a word, copyright subject matter is nothing but original expression as such.

Grasped in light of the concurrent action of sections 3(1) and 5(1) of the Canadian Copyright Act 1985, this means that copyright subsists in a work as a work but not in the non-expressive use of its material form. The critical importance of holding fast the distinction between a work and its material form in section 3(1) is that it reminds us of the elementary section 5(1) proposition that copyright subject matter is originality and that, therefore, non-expressive uses of the material form of the work, such as merely technical uses, are *a fortiori* not at all uses of copyright subject matter. Copyright law is always already technologically neutral because copyright law has nothing to do with *techne*. It is about saying, not doing – about conveying meaning, not achieving technical purposes.

In other words, technological neutrality is not a scope but a subject matter problem. It is less about preserving a balance between authors and users in respect of works of authorship in the digital environment than it is about determinations in respect of what gets on the copyright balance to begin with, whether in the digital or any other environment.⁶¹ Technological

⁵⁹ Ibid., per Lord Herschell L.C.: "The object of the Copyright Act was to prevent anyone publishing a copy of the particular form of expression in which an author conveyed ideas or information to the world." Ibid., 428, per Davey L.J.: "Now, a literary work is intended to afford either information and instruction, or pleasure, in the form of literary enjoyment." See also Exxon Corp. v Exxon Insurance Consultants International Ltd. [1981] 1 W.L.R. 624.

bid, 427, per Lindley L.J.: "The case of *Baker v Selden*, already referred to, illustrates this very well. It was there held that the author of a system of book-keeping was not entitled to any monopoly in the system, but was only entitled to prevent other persons from copying his description of it." Ibid., 428, per Davey L.J.: "I agree with what is said in an American case of *Baker v Selden*: 'Where the art cannot be used without employing the methods and diagrams used to illustrate the book, or such as are similar to them, such methods and diagrams are to be considered as necessary incidents to the art, and given therewith to the public; not given for the purpose of publication in other works explanatory of the art, but for the purpose of practical application'."

The leading Canadian formulation of technological neutrality as a mode of preserving balance in the digital environment is C.J. Craig's, "Technological Neutrality: (Pre)Serving the purposes of Copyright Law" in M. Geist (ed.), The Copyright Pentalogy: How the Supreme Court of Canada Shook the Foundations of Canadian Copyright (Ottawa 2013), cited by Abella J. in CBC v SODRAC 2015 S.C.C. 57, at [152]. See also G.R. Hagen, "Technological Neutrality in Canadian Copyright Law" in Geist, Copyright Pentalogy, cited by Abella J. in CBC v SODRAC 2015 S.C.C. 57, at [152]; C.J. Craig, "Locking out Lawful Users: Fair Dealing and Anti-circumvention in Bill C-32", in M. Geist (ed.), From "Radical Extremism" to "Balanced Copyright": Canadian Copyright and the Digital Agenda (Toronto 2010), cited by Abella J. in ESA v SOCAN 2012 S.C.C. 34, at [8].

neutrality is but a corollary of originality. It is not some kind of species of fair dealing any more than SOCAN is a case about user rights. 62 Just as subject matter determinations are conceptually prior to scope determinations, so is technological neutrality prior to balancing issues. Any other construal puts the scope cart before the subject matter horse.

IV. By Way of Conclusion

In SODRAC, the SCC dealt with broadcast-incidental copies; that is, copies technically necessary for, on the facts of the case, otherwise lawful (i.e. licensed) broadcasting of works of authorship. The tension between majority and dissenting judgments in the decision will serve to illustrate, by way of conclusion, the critical importance of grasping technological neutrality as a subject matter problem.

The SODRAC majority held that (1) technically necessary reproductions fall squarely and independently within the plain meaning of section 3(1)(d) as actionable reproductions, and that (2) the applicable plain meaning of section 3(1)(d) is upheld in Bishop v Stevens (hereafter, Bishop).⁶³ In the result, broadcast-incidental copies attract liability additional to liability pursuant to broadcasting, notwithstanding their being technically incidental to the otherwise lawful act of broadcasting. Liability attendant on the right of communication does not obviate liability independently attendant on the right of reproduction.

To be sure, the broadcast-incidental reproductions in SODRAC are specifically pertinent to digitally driven copy-dependent improvements in broadcasting technology. Imposing liability for broadcast-incidental copies thus extends the reach of copyright law more deeply into the activity of broadcasting than was the case pre-digitally. The upshot is that, while substantively the same activity, digital broadcasting nonetheless generates liability not only as a compensable exercise of the right of communication but additionally, unlike pre-digital broadcasting, also as a compensable exercise of the right of reproduction. Digital broadcasting not only communicates but also reproduces. The SODRAC majority held that the principle of technological neutrality cannot override the plain meaning of the statute so as to preclude liability where it clearly arises. Even if merely incidental, a copy is a copy until and unless the legislature plainly says otherwise. In the view of the majority, the principle of technological neutrality as applied to the facts in SODRAC has a role not in liability determinations but in the valuation, in light of an appropriate distribution of costs and benefits

⁶² For a view of non-expressive use as fair use, see M. Sag, "Copyright and Copy-reliant Technology"

^{(2009) 103} N.W.U.L.R. 1607.

63 [1990] 2 S.C.R. 467. Section 3(1)(d) provides that copyright, in relation to a work, includes the sole right "in the case of a literary, dramatic or musical work, to make any sound recording, cinematograph film or other contrivance by means of which the work may be mechanically reproduced or performed".

consistent with the copyright author/user balance in the new technological environment, of the licenses required to render digital broadcasting lawful.⁶⁴ The *SODRAC* majority thus relegates technological neutrality to the level of remedial determinations, distant from its import as a fundamental principle in liability determinations pertinent to the core of the encounter between copyright law and digital technology.

By contrast, Abella J.'s dissent formulates the view that the literal reading of section 3(1)d must yield to a purposive reading informed by the post-Bishop SCC enshrining of the fundamental principles of balance (in Théberge and CCH) and technological neutrality (in ESA) in Canadian copyright jurisprudence.65 Her basic point is that digital broadcasting does not cease to be broadcasting by virtue of being digital. Pursuant to the principle of technological neutrality, the functional equivalence of digital and predigital broadcasting means that broadcast-incidental copies involved in the former are not cognisable as compensable exercises of the right of reproduction. Broadcast-incidental copies cannot be subject to additional liability any more than, for example, increased efficiencies in the method of delivery of copies of works of authorship from one place to another can give rise to additional liability. Hiring a taxicab instead of walking to deliver otherwise lawful copies of works of authorship can have no copyright significance.⁶⁶ Thus, even if it involves copying, broadcasting is broadcasting until and unless the legislature plainly says otherwise. By focussing on functional equivalence rather than juridically irrelevant technical distinctions, the principle of technological neutrality preserves the traditional copyright balance in the digital environment.

But Abella J. need not have yielded on the literal meaning of the statutory text. To concede the literal meaning of the statutory text is after all to concede the case. Vast oceans of balance and technological neutrality could not wash away that remarkable concession. Once adopted, the *SODRAC* majority's version of the literal meaning of the text casts Abella J.'s dissent as an undoing of a *prima facie* finding of liability to be dislodged by appeal to principles and imperatives external to the text. Abella J. invokes an interpretive structure to negate the gravitational weight of a literal meaning to

⁶⁴ CBC v SODRAC 2015 S.C.C. 57, at [70]-[73].

⁶⁵ Ibid., at [178]: "If ... we adopt a literal interpretation of the right enumerated in section 3(1)(d) of the Act, there will be no room for the principle of technological neutrality in the interpretation of the rights enumerated in section 3(1) of the Act. Finding that the plain meaning of section 3(1)(d) and the result in Bishop dictate the scope of the reproduction right in lieu of a purposive and technologically neutral interpretation will, as a result, roll back nearly two decades of this Court's statutory interpretation and copyright jurisprudence."

⁶⁶ Ibid., at [168]: "These [broadcast-incidental] copies are, to borrow the language of Entertainment Software Association, merely technological taxis required for the delivery of the digital broadcast process." As an aside, I remain perplexed about Rothstein J.'s reply in his dissent in ESA v SOCAN, 2012 S.C.C. 34, at [50]: "In many respects, the Internet may well be described as a technological taxi; but taxis need not give free rides." Undoubtedly. But the question is whether cab fare has anything at all to do with copyright. Nowhere in the Copyright Act 1985 am I able to find the proposition that taximeters are royalty assessment devices.

which she herself accedes. Her judgment appears, on its own terms, less as an unfolding of the meaning of the statutory text than as an effort to deny its application. Bluntly put, Abella J. knows what the text means but now she must tell us why its meaning is not operative. She does not offer us a non-literal meaning. The procedure is unsurprisingly ill-fated. The hermeneutic paraphernalia cannot help but hover, at once wishfully and helplessly, over the encysted literality it seeks to dissolve yet has already granted. Rothstein J. can eclipse the enterprise in a single sentence: "There is nothing in the text, context or legislative history of these provisions (or s. 3(1)) that supports the view that the broadcasting process obviates the fact that broadcast-incidental copies are reproductions under the *Copyright Act*."

Far more expedient from Abella J.'s point of view - which I find far more persuasive than Rothstein J.'s – is the exegetical path signalled by the phrase "the work in any material form" in section 3(1) at the express core of the Copyright Act 1985. The phrase is the uncontested statutory anchor of the principle of technological neutrality. Noticed less often is that the phrase plainly imports a distinction between the work and its material form, and that, in light of the threshold category of originality in section 5(1), it defines copyright as a right in respect of original expression and nothing but original expression. The phrase warns us away from confusing originality, the subject matter of protection, with its fixation in material form, a condition precedent of protection. The work as a work and not its material form is copyright subject matter. A broadcast-incidental copy is not subject to liability because it is a tool, not a reproduction of original expression. It is a use of the material form but not of the work as a work. The copy-dependent digital environment is but an occasion to render this ever more explicit. Technological neutrality is not some kind of policydriven interpretive principle seeking to preserve some would-be traditional balance, as Abella J. appears to insist. It is rather an elaboration of originality, thus falling squarely within the constellation of fundamental copyright doctrines comprised of originality, idea/expression dichotomy,

⁶⁷ Hermeneutically waived taxicab fare is not the most persuasive of anchors for the public domain. For scholarly commentary on SODRAC consistent with Abella J.'s strategy, Hutchison, "Technological Neutrality" cited by Abella J. in CBC v SODRAC 2015 S.C.C. 57, at [151]; G.R. Hagen, "Interpreting the Right of Reproduction in Sodrac" (2016) 28 Intellectual Property Journal 363. I add in passing that reliance on Abella J.'s decision in ESA as a paradigmatic affirmation of the principle of technological neutrality strikes me as unfortunate. As the Federal Court of Appeal (FCA) pointed out in Canadian Broadcasting Corp. v SODRAC 2003 Inc. 2014 FCA 84, ESA turned not on the principle of technological neutrality but on the distinction in the statutory text between performance (of which communication is an instance) and reproduction. At [40], the FCA states: "[I]n ... ESA the [Supreme] Court's decision was reached following on an analysis that did not rely on any of the possible variants of technological neutrality." And at [43], it states: "[T]he majority decision in ESA was the result of an analysis of the legislative history of the Act and of the jurisprudence showing that communication to the public by telecommunication was historically an aspect of the performance right, and that this right did not include delivery of a permanent copy of the work." In my view, this is why, technological neutrality aside, the SCC majority in SODRAC regarded its decision as consistent with the ESA majority. 68 *CBC v SODRAC* 2015 S.C.C. 57, at [55].

merger, fair dealing and the distinction between a work and its material form embedded in fixation as a condition precedent of protection.

In my view, the interesting question in *SODRAC* is not juridical but historical. It is not how to extricate broadcast-incidental copies from the web of liability but how could we have possibly come to assume, when dealing with the plain meaning of a statute premised on works of authorship, that the subject matter of protection is anything other than what the statute says it is: original expression as such. My point is that a literal reading of the statutory text premised on the distinction between the work and its material form would have permitted a more fruitful analysis of the situation in *SODRAC*. The majority and dissenting judgments in *SODRAC* are both examples of a shared failure to grasp the significance of the distinction. In short, neither apprehends technological neutrality as a subject matter problem.

A reading of the statute focused on subject matter would have generated a view along the following lines. Section 3(1)(d) provides that copyright, in relation to a work, includes the sole right "in the case of a literary, dramatic or musical work, to make any sound recording, cinematograph film or other contrivance by means of which the work may be mechanically reproduced or performed". The question in *SODRAC* is whether to "make" a broadcast-incidental copy is to make a "contrivance" within the meaning of section 3(1)(d). The mischief addressed is in the making of the contrivance, not in the subsequent performance of the work for which the contrivance "may" or may not be used. The phrase "by means of which the work may be mechanically reproduced or performed" describes a feature of the contrivance, the making of which is the mischief at issue. Thus, for example, making a recording of a musical work infringes section 3(1)(d), regardless of any subsequent use of the contrivance, say a compact disc (CD), for the purpose of performance.

Of course, that a contrivance is something by means of which a work may be performed is not enough to get at the meaning of section 3(1)(d). Otherwise, making a saxophone would meet the description. The meaning of "contrivance" in the 3(1)(d) is elucidated by reference to the instances provided, a "sound recording" and a "cinematograph film". The making of a CD infringes section 3(1)(d) because, unlike a saxophone, it is a contrivance by means of which the work may be "mechanically" performed. The making of the CD is itself the complete infringement. The CD is a copy of the work. It is independently the wrongful reproduction, regardless of its use or lack thereof in a subsequent performance.

A broadcast-incidental copy, however, does not meet that description. It is not a contrivance by means of which the work "may" be mechanically performed. It is a contrivance by definition used in broadcasting. Being used is what it means for it to be broadcast-incidental. There is no such thing as an unused broadcast-incidental copy, the making of which is a

completed act in its own terms. A broadcast-incidental copy is a tool involved in the process or machinery of broadcasting, independently of which it is unintelligible, entirely devoid of meaning, as are the lines and figures on the sleeve chart in Hollinrake, levers on a measuring instrument, not works of authorship or copies thereof. A broadcast-incidental copy is more akin to a key in a saxophone used to perform the work, or to the saxophone itself, than to a CD by means of which the work is mechanically performed. The broadcaster uses the broadcast-incidental copy to broadcast the work like the saxophonist uses her saxophone to perform it. Of course, the broadcast-incidental copy has the peculiarity of resembling a copy of the work, much like the accounting forms in Baker do, but this resemblance can no more give rise to liability under section (3)(1)(d) than can the making of a saxophone. A broadcast-incidental copy is a copy of the material form of the work but not of the work as a work. It is a nonexpressive use, and thus not a use in relation to a work within the meaning of section 3(1). We need neither policy-driven imperatives, nor legislative amendments, when originality can do the work for us.