

INTELLECTUAL PROPERTY TODAY: OF MYTHS AND PARADOXES

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It is often claimed or assumed that intellectual property laws are necessary to encourage individual creativity and inventiveness and that society would be worse off without such laws. This article suggests that, in the field of copyrights and patents at least, such claims rest on myth and paradox rather than proof, and should be viewed sceptically. With its minimal standards for eligibility, copyright today seems less concerned with authors, art and literature than with protecting the distributors of standardized industrial products, and sometimes is even used to prevent the dissemination of knowledge by becoming a tool of censorship. Patent law too requires major rethinking if its promise of bettering mankind by encouraging socially useful discoveries and inventions and the dissemination of knowledge is to be realized. The article concludes that intellectual property laws should no longer be analyzed in terms of outmoded notions of property: more particularistic inquiries are needed to ensure that these laws adequately serve valid social ends.

On a souvent prétendu ou présumé que le droit sur la propriété intellectuelle était nécessaire parce qu'il encourageait la créativité et l'esprit d'invention chez les particuliers et que la société pâtirait de leur absence. Dans cet article l'auteur suggère que, du moins dans le domaine des droits d'auteur et des brevets, de telles assertions reposent sur des mythes ou des paradoxes plutôt que sur des preuves solides et qu'il serait bon de les voir d'un oeil sceptique. À cause des normes minimum d'éligibilité, les droits d'auteur semblent aujourd'hui avoir moins trait aux auteurs, à l'art et à la littérature qu'à la protection des distributeurs de produits industriels standardisés et qu'ils servent parfois à bloquer la dissémination du savoir et à devenir l'outil de la censure. Le droit des brevets lui aussi a besoin d'une refonte importante pour contribuer à l'amélioration de l'humanité, comme il le promet, en encourageant les découvertes et inventions utiles à la société et la dissémination du savoir. L'auteur en conclut que le temps est révolu où le droit sur la propriété intellectuelle était considéré en termes de notions de propriété maintenant dépassées; il faut s'engager dans des recherches plus spécifiques pour s'assurer que ce droit mène à des résultats sociaux valables.

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Introduction

What is intellectual property law? The phrase is a shorthand tag—and like all such tags, somewhat misleading—for a diverse range of legal areas: copyright law (the archetype of “intellectual property”) and a set of subjects that shade from intellectual into “industrial property” as the interests they protect look less creative and more like business assets—design rights, patents, trademarks, and the various business wrongs that go under the head of “unfair competition”. Under this last rubric come such acts as luring away a rival’s employees in breach of their contracts of employment (“inducing breach of contract” or “conspiracy”), trading in a way that might mislead people into believing that they are dealing with another firm or buying someone else’s products (“passing off”), stealing a rival’s trade secrets (“breach of confidence”), telling false stories about a competitor so that customers are less inclined to deal with it (“injurious falsehood”), and so on.¹

The reasons why legal protection is extended to intellectual property are not entirely clear or convincing. Theorists have identified both moral and economic motivations.²

Morally, a person is said to have a natural right to the product of her brain; alternatively, society is obliged to reward persons to the extent that they have produced something useful for society: as one sows, so should one reap.³ But these arguments fail to make the case. We know that ideas are not protected once they leave the creator’s brain and, when society does protect ideas after they have taken some concrete shape, the protection is always limited in time and space. The logic flowing from a concept of natural rights, that ideas should be protected in perpetuity and throughout the world, has never been accepted by even the most

¹ Retired publisher Jack McClelland is reported as having once said of copyright law—and he would no doubt have said the same of intellectual property generally—that it is “the most boring subject known to man”: Hugh Winsor, *Despite furor, Senate may be doing its job on copyright law*, *Globe & Mail*, April 11, 1988, p. A2. But boredom, as the poet Auden tells us, is a subjective reaction, Edward Mendelson (ed.), *W.H. Auden: Collected Poems* (1976), p. 16.

² Fritz Machlup, *An Economic Review of the Patent System* (1958), Study #15 of the Subcommittee on Patents, Trademarks and Copyrights of the U.S. Senate Committee on the Judiciary (85th Cong., 2d Sess.), p. 21 ff., discusses these theories in relation to patents. For similar arguments and a critique in the context of copyright, see S. Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies and Computer Programs* (1970), 84 *Harv. L. Rev.* 281. Most recently, Edwin Hettinger, *Justifying Intellectual Property* (1989), 18 *Philosophy & Public Affairs* 32, concludes, at p. 52, that the institutions of intellectual property “are not so obviously or easily justified as many people think”.

³ This shades into the materialist argument that only good ideas are worth good money, to which John Ruskin for one subscribed. “Ruskin liked making money . . . mainly because healthy profits showed his critics that his theories and ideas were more practicable than they had supposed”: Brian Maidment, John Ruskin, *George Allen and American Pirated Books* (1981), 9 *Publishing History* 5, at p. 7.

ardent promoters of a strict intellectual property regime. Nor, if social reward is the criterion, can we say exactly what services deserve what reward. Does a pulp novelist read by millions merit as much as the inventor of insulin, even if readers are shown to need the pulp for their sustenance as much as a diabetic needs insulin to survive? And why should a patent or copyright be the appropriate reward? Isaac Newton could get no patent for the principle of gravity, yet his idea proved more socially useful over time than the finest Stephen King thriller, for which society thinks fit to award King or his assignee a copyright for the author's life plus fifty years. And who gets the monopoly right where two or more persons invent something independently, without knowing of the other's work, is often more a matter of luck than anything else: the history of science and invention suggests that the phenomenon of simultaneous discovery is the rule, not the exception.⁴

On the economic plane, patents and copyrights are supposed to encourage work to be disclosed to the public and thus to increase society's pool of ideas and knowledge. Yet many inventions are kept secret and the law rigorously protects that decision, whether or not disclosure would be more socially useful than secrecy. And copyright law, too, allows the creator not to publish his or her work and shades off into a tool of censorship.

At a more basic level, intellectual property regimes are said to encourage the initial creative act. Yet, in the centuries before copyright and patent laws were established or rigorously enforced, inventive and creative work flourished. And if the British patent law of 1624 really did encourage greater inventiveness, why did the Industrial Revolution take some 150 years more to arrive? A law with this time lag suggests a lack of, or at least a serious discrepancy between, cause and effect. In any event, today much creative and inventive work is carried out by employees, who are motivated to work by incentives other than patents or copyrights.

The strongest economic argument is utilitarian: without copyright or patents, much research and creativity would not be carried on or financed by firms.⁵ But this is only partly true. No doubt, *less* such activity would

⁴ Robert Merton, *The Sociology of Science: Theoretical and Empirical Investigations* (1973), p. 356. The point was judicially recognized in *Kewanee Oil v. Bicron* (1974), 416 U.S. 470, at pp. 490-491: "If something is to be discovered at all very likely it will be discovered by more than one person. . . . Even were an inventor to keep his discovery completely to himself, . . . there is a high probability that it will soon be independently discovered."

⁵ See, e.g., Peter Karlen, *Worldmaking: Property Rights in Aesthetic Creations* (1986), 45 *Jo. of Aesthetics and Art Criticism* 183, at p. 185: "intellectual property rights . . . were developed to promote investment" in three types of labour: inventorship, workmanship, and authorship. Earlier, Karlen points out, *ibid.*, at p. 183, the pervasive character of these rights: "It is extraordinary that almost all man-made objects in this aesthetic environment are actually or potentially subject to intellectual property laws."

occur—but how much less, and in what areas?⁶ It seems impossible to argue that the current laws encourage just the right amount of research, creativity and financing, and just in the right areas.⁷ In any event, this fails to make the case for intellectual property. For if the allocation of these property rights is simply a means to an end, namely, to make the fruits of creativity and research available to users, then one must ask if the means is the most effective way to that end. If the rights restrict availability and use more than they increase it, they are unjustifiable; if the converse, one must ask if there are better means of increasing availability and use, either by modifying the rights or by finding alternative means.⁸

A more disputable theory is propounded by Edmund Kitch, *The Nature and Function of the Patent System* (1977), 20 *Jo. Law & Econ.* 265, that patent law gives an inventor the right to develop a prospect and to protect the innovation flowing from the basic invention: cf., Roger Beck, *The Prospect Theory of the Patent System and Unproductive Competition* (1983), 5 *Research in Law & Economics* 193; see also *Brenner v. Manson*, 383 U.S. 519, at p. 536 (1966), (“a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion”).

⁶ Recall that the motion picture industry, which now relies mainly on copyrights, contracts and (increasingly) trademarks to protect the exploitation of its products, in the beginning protected itself with patent pools over the equipment and processes, without which the patentees argued “no business could be conducted”: Janet Staiger: *Mass-produced photoplays: economic and signifying practices in the first years of Hollywood*, in Paul Kerr (ed.), *The Hollywood Film Industry* (1986), p. 97, at pp. 102-103. But, as we know, the business could and did flourish without patent protection.

⁷ Recognizing the “skewing” effect of intellectual property regimes, one writer has argued that judges themselves should expand the protection given to ideas by developing a tort of misappropriation wherever (a) a firm has substantially invested in an innovation; (b) another has “appropriated” it; and (c) that other has used it to compete with the first: C. Owen Paepke, *An Economic Interpretation of the Misappropriation Doctrine: Common Law Protection for Investments in Innovation* (1987), 2 *High Technology L.J.* 55, at pp. 69-72.

Judges may already be doing this, albeit erratically, whenever they “stretch” common law principles: see, e.g., *Franklin v. Giddins*, [1978] Qd. R. 72 (S.C.), creating an attenuated patent through trade secret law. U.S. state judges already have a misappropriation tort in their common law arsenal: see, e.g., *Board of Trade of the City of Chicago v. Dow Jones & Co. Inc.*, 456 N.E. 2d 84 (Ill. S.C., 1983). Most British Commonwealth courts have, so far, resisted the temptation to create one *eo nomine*: see, e.g., *Associated Newspapers PLC v. Insert Media Ltd*, [1988] 1 W.L.R. 509 (Ch. D.) and *Westfair Food Ltd v. Jim Pattison Industries Ltd* (1989), 59 D.L.R. (4th) 46, at p. 65 (B.C.S.C.), the spirited attack on any notion of an unfair competition tort in *Moorgate Tobacco Co. Ltd v. Philip Morris Ltd* (1984), 56 A.L.R. 193, at pp. 210-214 (Aust. H.C.), and the striking down of a statutory attempt to enact one as beyond federal competence in Canada: *MacDonald v. Vapour Can. Ltd.*, [1977] 2 S.C.R. 134, (1976), 66 D.L.R. (3d) 1; cf., *Archibold v. C.F.A.O.*, [1966] Ghana L.R. 79 (H.C.), accepting an American-style common law tort of misappropriation to protect oral music from unauthorized recording and *Vidéotron Ltée c. Industrie Microlec Produits Électroniques Inc.*, [1988] R.J.Q. 546 (C.S.), holding the supply of television signal decoders to be unfair competition actionable by affected pay-television cable companies, contrary to Article 1053 of the Civil Code.

⁸ Hettinger, *loc. cit.*, footnote 2, p. 49.

Yet, when all is said and done, Western capitalist societies are highly property-orientated, and entrenched ideas of property drive their reactions to many market activities. But their views are not consistent. Some things are stigmatized as amounting to unfairly riding on others' coat-tails; other things are not. No bright line can be drawn *a priori* between the morally (or legally) permissible and impermissible, and where the line is in fact drawn varies considerably from country to country.

I propose to look particularly at copyright and patent law to see how far they serve or can be made to serve useful purposes in society. I shall deal only incidentally with trademarks, unfair competition or designs law, but much of what follows may be relevant to those areas as well.

I. Copyright

If I create a literary, musical, dramatic or artistic work, I automatically have a copyright in it. (In some countries, I must mark the work with a copyright notice and record it in a public registry, but this formality is internationally on the decline.) I can stop anyone else from copying my work or doing other things with it, such as translating, broadcasting, making a sound recording of it, or perhaps including it in an electronic database. My right lasts for my lifetime plus another fifty years, so that my heirs can benefit from the fruits of my creativity. If a person in France copies my work there, I can stop his doing that; and, equally, a French person can stop a foreigner copying a French work in a foreign country.

This looks morally right, does it not? Here is a law that must encourage people to do creative things and to profit from their creativity. Society will benefit because our minds and souls will be exposed to the humanizing influence of the world's greatest thinkers, and those of us lucky enough to be creative will be inspired in new directions: for even a pygmy standing on the shoulders of a giant can see further than the giant.

But, upon examination, the theory dissolves into mythology.

A. *Are Copyrights and Patents Designed to Protect Authors and Inventors?*

The first myth is that copyright law is designed to protect authors. In locating itself around the central character of the author (a term that encompasses the whole range of creative persons: artists, composers, playwrights, novelists, poets, and so on), copyright law is politically astute. The mere mention of authors, artists or composers connotes certain things to us. We think of the stereotypical author in his garret, a tragic sort of person driven by his muse: of Beethoven, continuing deafly to conduct one of his symphonies without realizing that the orchestra had already reached the end of the piece and had stopped; of Oscar Wilde, the brilliant aesthete with a fatal flaw; of Emile Zola, with a social conscience greater than his discretion. We each have a personal list of favourites. Surely anything that we as a society can do to encourage the noble professions

of letters and drama and the muse of music, we should do. Like the rest of us, artists have to live and eat. Is not the copyright law there for them?⁹

Let us move from the garret, where such creators by tradition work, to the basement, where the inventor tinkers.¹⁰ What of the inventor driven to invent, to produce something of value to humankind: the Marie Curies perfecting X-ray technology?¹¹ Should they not be encouraged? Should

⁹ See, e.g., Barbara A. Ringer (then U.S. Copyrights Register), in the *Demonology of Copyright* (1974), p. 6: "Perhaps one of the problems with copyright is that some people have elevated it to a sanctified or divine plane, and that authors have been looked on as saints or angels, if not demi-gods." Proceeding to argue for enhanced copyright protection, Ringer falls into the very trap she attributes to others, of romanticizing and privileging individual creativity (*ibid.*, pp. 18-19): "the most important copyright goal of all [is] a substantial increase in the rights of the author, considered not as a copyright owner but as a separate creative individual. It involves a recognition that committees don't create works and corporations don't create works, and machines don't create works. . . . If the copyright law is to continue to function on the side of light against darkness, good against evil, truth against newspeak, it must broaden its bases and its goals." Cf., footnote 90, *infra*.

Note that the lionization of authors is a comparatively recent Western phenomenon, still resisted in many Oriental societies which subordinate the author's identity and ego to the work itself, Joseph Campbell, *Myths to Live By* (1972), p. 108. A recent trend of Western literary criticism mimics Oriental thinking by treating the work as a self-contained text, independent of the author's personality and intentions: see Roland Barthes' essay, *The Death of the Author*, in his *Images-Music-Text* (1977), p. 142. Michel Foucault in his essay, *What is an Author?*, makes the point that, historically, works first needed authors so that penalties could be effectively imposed for prohibited discourse such as blasphemy and sedition. Later, in the 18th century, as works become objects of appropriation under copyright regimes, the author acquired a new status "at the moment he was accepted into the social order of property which governs our culture", M. Foucault, *Language, Counter-Memory, Practice* (1977), p. 113, at pp. 124-125. I am indebted to my friend George Klippert for alerting me to this line of inquiry.

¹⁰ This, by the way, is the easiest way to demarcate copyright from patents: copyright protects persons who work in garrets, patents protect those who work in basements. Workers such as computer programmers, who create matter that could fall either under copyrights or patents, are more difficult to site: unless consigned to limbo, they might be located in a ground floor study, close to a washroom. Geniuses such as Leonardo da Vinci would today need a moving stairway to keep carrying them between floors.

Concepts of authorship, industrial design, basic research, and applied science and technology are of course variable social constructs, and the many attempts to define them invariably for legal purposes fail, if not at the centre then at the margin. However, our legal system preserves and reinforces the phenomenon of the two solitudes of art and science, no doubt subdivided into further solitudes, eloquently decried by C.P. Snow in his 1959 Rede lecture, *The Two Cultures and the Scientific Revolution*, in C.P. Snow, *Public Affairs* (1971), p. 13; see also, *The Two Cultures: A Second Look*, *ibid.*, p. 47.

¹¹ Not all inventors have the public image of Marie Curie. Commenting on the United States inventor, G. Lewett notes: "The inventor frequently appears as eccentric, single-minded, and so focused on his technology that he seems emotionally and mentally unstable . . . Shying away from the popular image as an 'eccentric', [inventors] usually prefer some acceptable occupational title: engineer, technician, salesman, dentist, or whatever": *Fostering General Awareness of the Importance of Inventiveness*, [1986] *Industrial Property* 233, 234.

we not have a patent system to give them the small solace of a seventeen-year monopoly when they produce that elusive thing that will contribute to our improved material benefit?

A myth is a powerful idea. It is something we cling to. It has a kernel of truth, and it is this kernel that is frequently universalized as the great truth. But it remains a myth because it is true only at the margin. And yet it tends to overwhelm our senses to the exclusion of reality.

And so it seems with copyrights and patents. Since the onset of industrialization, the individual creator and inventor have been pushed to the sidelines. Most creative and inventive work is not done by individuals; it is done by teams, and the creativity and inventiveness is part of a process designed to put a product on the market. Occasionally, the creativity is that of the team itself. More often, it is directed by the firm that employs the team. Most copyrights and patents belong not to their individual creators and inventors but to the firms that employ them.¹²

One can go further. Copyright law did not grow up to protect authors. There were indeed some big names¹³ associated with the first copyright statute, the Statute of Anne of 1710. But consider how Lord Camden described the scene surrounding the passage of the Statute:¹⁴

In the year 1708 [they] came up to parliament in the form of petitioners, with tears in their eyes, hopeless and forlorn; they brought with them their wives and children to excite compassion, and induce parliament to grant them a statutory security. They obtained the Act. And again and again sought for a further legislative security.

Who were "they"? Authors? No. It was the stationers, the publishers and retailers of books of the day, of whom Camden speaks.¹⁵ Eighteenth century authors were not one wit better off in Britain after the Statute than they were before. Nor were they in the nineteenth century. Superstars like Charles Dickens could rail against the American pirates on their United

¹² Most states retain the pretence that the employed author or inventor matters by granting her that status but by proceeding to vest ownership of the product in the employer. Other states dispense even with this charade. Thus, United States copyright law holds that the person or entity who employs another to create works "for hire", typically an employee but sometimes even an independent contractor, is not merely the copyright *owner* (as is the position in most other countries) but also the work's *author*: see Copyright Act 1976, 17 U.S.C. s. 201(b), repeating a similar provision in the 1909 U.S. Act; cf., *Community for Creative Non-Violence v. Reid*, 109 S. Ct. 2166 (1989). In patent law too, both capitalist states (for example, Spain and Argentina) and socialist states (for example, the Soviet Union and Yugoslavia), sometimes allow corporations to organize their activities so that individual inventorship is obscured and any patent is issued directly to the corporation: Berndt Godenhilms, *Employee Inventions*, ch. 7 in 14 *International Encyclopedia of Comparative Law* (Copyright and Industrial Property), pp. 7-228 ff.

¹³ For example, Swift, Defoe, Addison and Steele.

¹⁴ *Donaldson v. Becket* (1774, H.L.), reprinted in *The Literary Property Debates: Six Tracts 1764-1774* (1975), Part F, p. 48, at p. 50.

¹⁵ The story is well told by John Feather, *The Book Trade in Politics: The Making of the Copyright Act of 1710* (1980), 8 *Publishing History* 19.

States lecture tours, and Mark Twain could appear before a House of Lords select committee, arguing for perpetual copyright.¹⁶ But, for every Mark Twain and Charles Dickens, there were 998 other writers for whom copyright and copyright reform were irrelevant. A British literary historian of this period states why he does not bother to mention copyright in his narrative:

The various copyright acts and international treaties ... made very little difference to the lives of ordinary writers. The extension of the copyright period under the Acts of 1814 and 1842 for example, had no effect on the majority of writers because they rarely owned the copyright of their books. Publishers, however, did benefit; they were given more time in which to exhaust the copyrights they had bought from their authors. James Grant sold the copyrights of his popular historical novels to Routledge for between £100 and £250 a time. Between 1856 and 1882 Routledge sold 100,000 copies of Grant's *Romance of War*: no wonder Grant described authorship as a "hopeless treadmill".¹⁷

So, too, might have Edward Lear, who sold the copyrights of his *Book of Nonsense* for £125, and saw it go to nineteen editions in his lifetime without his getting a single penny more in royalties.¹⁸

Have things changed all that much? To some extent, yes: outright transfers of copyright in some industries have been replaced by royalty contracts, so that there is a steady flow, though more often a trickle down, to the author. But how many full-time self-employed writers are there who rely for their living on the copyright system? Just over a decade ago, one commentator put the figure at 300 in the United States.¹⁹ The

¹⁶ This is amusing, since Mark Twain made his literary reputation with the story of The Notorious Jumping Frog of Calaveras County, only to be told some time later that it was an ancient Greek tale, The Athenian and the Frog. Admitting the "exact resemblances", Twain claimed that "it must be a case of history actually repeating itself, and not a case of a good story floating down the ages and surviving because too good to be allowed to perish". See Charles Neider (ed.), *The Complete Humorous Sketches and Tales of Mark Twain* (1961), pp. 623-628. As they say, tell it to the judge. Cryptomnesia, or unconscious plagiarism, is a far more common phenomenon than many may realize: see Merton, *op. cit.*, footnote 4, pp. 402 ff. Technically, it may constitute copyright infringement: *Francis Day & Hunter Ltd. v. Bron*, [1963] Ch. 587 (C.A.).

¹⁷ Nigel Cross, *The Common Writer: Life in Nineteenth Century Grub Street* (1985), p. 5.

¹⁸ Vivien Noakes, *Edward Lear* (1985), p. 155.

¹⁹ John Tebbel, *The Book Business in the USA*, in David Daiches and Anthony Thorlby (eds.), *The Modern World: Reactions* (1976), Vol. 3, p. 523, at p. 533. Tebbel indicates that another ten million were "trying" to earn their living by writing. A Canadian study, presumably relying on different criteria, suggests that in 1978 about 950 freelancers wrote full-time, but that fully 62% of them earned under \$10,000 a year from their writing and the median income was only \$7,000! See B.R. Harrison and J.R. Thera, *Economic Status of Canadian Freelance Writers*, in W.S. Hendon and J.L. Shanahan, *Economics of Cultural Decisions* (1983), pp. 145-146. See also James Hepburn, *The Author's Empty Purse and the Rise of the Literary Agent* (1968), p. 100 ff., stating that half the full-time writers surveyed in England in the mid 1960s earned less than the minimum pay of a bus driver, and that even the "most prolific and business like" major writer earned less than the literary agent he or she employed.

number cannot have grown much since, despite the occasional literary agent who manages, with a maximum of self-promotional fanfare, to extract a multi-million dollar advance for an author from a publisher for book and film rights. There are not very many authors like Dan Ross, the Canadian who reportedly makes \$100,000 a year from his career as a Harlequin Romance writer. But then, few writers have written as many books as Ross: 327 in twenty-five years, with forty million copies sold.

Even so-called "moral rights", which extend to authors the right to have their work properly credited and maintained intact, have given authors cold comfort in practice. True, in Canada, the United States and France, authors have won some much publicized victories. In Canada, Michael Snow stopped the Eaton Centre from bedecking his Canada geese sculpture with Christmas wreaths;²⁰ in the United States, Monty Python stopped the ABC network from rebroadcasting a chopped-up version of their television show;²¹ and in France (but not North America), "colourizing" films for television viewing was temporarily slowed down by litigation over the monochrome film, *The Asphalt Jungle*, directed by John Huston.²² But, in Canada, even with an express moral rights law, authors have failed in virtually every case other than Michael Snow's and, now that the 1988 amendments to the Canadian copyright law expressly allow moral rights to be waived,²³ we may expect the practice long adopted in the United States film industry of standard form blanket waivers to become general

²⁰ *Snow v. The Eaton Centre* (1982), 70 C.P.R. (2d) 105 (Ont. H.C.). For comment, see David Vaver, *Snow v. The Eaton Centre: Wreaths on Sculpture Prove Accolade for Artists' Moral Rights* (1983), 8 Can. Bus. L.J. 81; David Vaver, *Authors' Moral Rights: Reform Proposals in Canada: Charter or Barter of Rights for Creators?* (1987), 25 Osgoode Hall L.J. 749.

History, like art, has a habit of repeating itself. In 1903, the King Edward Hotel in Toronto wanted some paintings in its lobby livened up because they were thought too sombre. Claiming the changes would ruin his professional reputation, the artist obtained an interlocutory injunction to prevent his work being tampered with, even though the hotel owned it: *Dodge v. Allied Arts Co.* (1903), 14 Copyright Office Bull. 776 (N.Y. Sup. Ct.).

²¹ *Gilliam v. A.B.C.*, 538 F. 2d 1 (C.A. 2, 1976). Cf., the Belgian case of a grimly realist adaptation of Franz Lehár's operetta "The Merry Widow", which was said to infringe the moral rights of the author's successors. However, no injunction to stop the performances was granted, and only token damages of one franc were awarded: Franz van Isacker, *Letter from Belgium*, [1967] Copyright 135.

²² *Soc. d'exploitation de la Cinquième Chaîne "La Cinq" c. Consorts Huston*, Rec. Dalloz Sir. No. 31 (Sep. 29, 1988), I.R. 227. On July 6, 1989, the Cour d'appel de Paris reversed a lower court injunction banning the exhibition of the colorized film, on the ground that under U.S. law, the film's "author" was the film production company, not Huston, and that French public policy did not prevent Huston ceding his moral rights to the company. The case is subject to further appeal. See M. Landau, *Colourization, Copyright and Moral Rights: A U.S. Perspective* (1990), 5 I.P.J. 215, at p. 246 ff.

²³ Copyright Amendment Act, S.C. 1988, c. 15, s. 4, inserting new s. 12.1(2) (renumbered as s. 14.1(2)) into the Copyright Act R.S.C. 1985, c. C-42.

contracting behaviour throughout North America in all dealings with creative people.

In any event, social patterns of conduct frequently overwhelm legal rights. Is there not a deep irony in the fact that much of John Stuart Mill's autobiography was in fact the work of his wife, Harriet, whose moral rights as co-author the great philosopher did not think fit to acknowledge formally?²⁴ With the strongest moral rights regime in the world, would Harriet likely have compelled John Stuart to put her up there with him on the title page?

B. *Does Copyright Law Encourage Art and Literature?*

The second great myth is that copyright law encourages the creation of works of art and literature. This would be true if *only* such works were granted copyright. But the law does not require that a work have any merit or, indeed, that it be much of a work at all. This view has much to commend it: we cannot fashion a system that grants copyright only to works of high art or literature. Who is to judge greatness: a court comprising lawyers? The last thing we need are lawyers giving us the benefit of their views on aesthetics and literary criticism.²⁵ So we avoid this, wherever possible, by withdrawing such criteria from the judges and giving them something objective with which to work.

This course, however, leads to the arts and literature being trivialized and ultimately overwhelmed. As for artistic work, we are told that "artistic" refers to the means of expression—drawing, engraving, sculpting, and the like. It is not used in any fine arts sense.²⁶ One judge, perhaps thinking of his own artistic talents, has said, in all seriousness, that anything more elaborate than "a single straight line drawn with the aid of a ruler" qualifies

²⁴ Fred Stillinger, *Who Wrote J.S. Mill's Autobiography?* (1983), 27 *Victorian Studies* 7, at pp. 23 ff.

Even law professors sometimes lack sensitivity on the issue of moral rights: see *Goulet v. Marchand* (unreported, 1985, Que. S.C.), where a research assistant on a law text was held entitled to be named as a co-author with the professors.

²⁵ See, e.g., *George Hensher Ltd v. Restawile Upholstery (Lancs.) Ltd*, [1975] R.P.C. 31 (H.L.), where the judges treat the reader with their views on what constitutes "art"—and not surprisingly, not one is able to agree with any other of the five members on the panel. Richard Posner makes the following point, relevant particularly to avant-garde works: "Judges and administrators are for the most part middle-aged, upper-middle-class, politically and socially conventional men and (increasingly) women. Ideas directed at the young, the bohemian, the deviant, the extremist, and other marginal portions of the spectrum of tastes and preferences are likely to leave these officials quite cold": *Free Speech in an Economic Perspective* (1986), 20 *Suffolk U.L. Rev.* 1, at p. 25. Posner has nonetheless since entered the lists of literary criticism: see his *Law and Literature* (1988).

²⁶ *DRG Inc. v. Datafile Ltd* (1987), 17 C.I.P.R. 136, at p. 145 (Fed. T.D.).

as an artistic work.²⁷ As for literature, once short business letters written in commercialese and internal office memoranda qualify as original literary works,²⁸ the deconstruction is complete and the gates are flung open to admit anything into the fold. Business directories, business forms, contracts drawn by lawyers, answers to puzzles, any collocation of symbols meaningful to someone, are all called original literary works. In the United States, there can apparently be a copyright in page numbers;²⁹ and a British court once said that even a single word may have copyright, although the court eventually drew the line to exclude "Exxon": to the oil company whose trademark it was, the word was no doubt a thing of beauty and a joy forever, but it did not inform, please or instruct the judges hearing the case and was not to them, therefore, a literary work.³⁰ Against this background, is it surprising that legislatures all over the world felt unable to resist the ultimate reductionist logic, pressed on them by the computer industry, to classify and protect computer programs in their electronic state as literary works: invisible, unreadable, utilitarian—but literary nonetheless?

With music, the position in Canada is even odder. The requirements in the 1921 Act³¹ that a musical work must have melody or harmony and must be graphically notated exclude improvisations and much avant-garde music, including computer-generated or synthesized works. The ultimate insult comes when the Act classifies music that is recorded only

²⁷ *British Northrop Ltd. v. Texteam Blackburn Ltd.*, [1974] R.P.C. 57, at p. 68 (Ch. D.), Megarry J. Whitford J. also so concluded independently in *Lerose Ltd v. Hawick Jersey Int'l Ltd.*, [1974] R.P.C. 42, at p. 47 (Ch. D.); drawings are nothing more than "lines drawn on paper". Cf., *Merchandising Corp. of America Inc. v. Harpbond Ltd.*, [1983] F.S.R. 42, at p. 47 (C.A.), holding that facial makeup did not constitute a "painting": "Two straight lines drawn with grease-paint with another line in between drawn with some other colouring matter, in my judgment, by itself could not possibly attract copyright." What of minimalist art now?

²⁸ *British Oxygen Co. Ltd v. Liquid Air Ltd.*, [1925] 1 Ch. 383 (Ch. D.) (letter); *Beloff v. Pressdram Ltd.*, [1973] 1 All E.R. 241 (Ch. D.) (memorandum); *Bourassa v. Ouellet*, (unreported, Que. S.C., 1968, Dorion C.J.) (personal correspondence protected).

²⁹ *West Publishing Co. v. Mead Data Central Inc.*, 799 F. 2d 1219 (C.A. 8, 1986). We do not know for certain because the case, which involved the Lexis legal database making West Publishing's case reports available for retrieval in competition with West's Westlaw database, was settled by the parties before a judgment on the merits. Lexis now pays West a royalty to use West's reports and statute compilations. The case is criticized in L. Ray Patterson and Craig Joyce, *Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations* (1989), 36 U.C.L.A. L. Rev. 719.

³⁰ *Exxon Corp. v. Exxon Insurance Consultants Int'l Ltd.*, [1981] 1 W.L.R. 624, at pp. 634-635 (Ch. D.), aff'd, [1982] R.P.C. 69 (C.A.). The oil company failed in its copyright suit but succeeded in preventing the defendant from using Exxon in its name through the law of passing off. See, generally, R. Wellek, *What is Literature?* and E.D. Hirsch Jr., *What Isn't Literature*, in P. Hernadi (ed.), *What is Literature?* (1978), pp. 16 ff. and 24 ff., respectively.

³¹ Copyright Act, *supra*, footnote 23, s. 2 (definition of "musical work"). See also Janet Mosher, *Twentieth Century Music: The Impoverishment in Copyright Law of a Strategy of Forms* (1989), 5 I.P.J. 51.

on tape, without graphic notation, as a sound recording—an industrial work, which carries a shorter period of protection and no performing right, and one whose copyright ownership rests in the owner of the physical tape, who may not always be the composer.³²

What has happened is plain enough. Copyright has little to do any more with arts and literature, and certainly not with the cutting edge of music. These are simply the front line troops at the head of an army of standardized industrial products—fungible pop records, soap operas, formula films, pulp books on the racks of airport book stores, and the detritus of commercial file notes and correspondence.³³ This phenomenon also owes something to the influence and culture of the modern mass media:

The communications industries have become vast and largely autonomous enterprises, often imposing their own criteria upon the material they disseminate—criteria that may be unrelated either to the impulses of the creator or to the needs of the audience. The medium here tends to become the instrument of neither. Rather it may exist to serve its own ends, the principal one of which may be to return profits to an entrepreneur, primarily by attracting an appropriate audience. The medium thus may cease to be a mechanism existing in order to link a creator to an audience; rather the writer or composer may be hired to produce something to the medium's specifications that will aid it in assembling and "conditioning" an audience for an advertisement.³⁴

I have no wish to denigrate this material, which fills much of our leisure and working time and which we often value enough to be willing to pay for it. I simply say that copyright accepts all comers into its fold. Art and literature occupy so small a field that it is hard to see how copyright law significantly encourages their creation.³⁵

C. Does Copyright Law Encourage Dissemination of Works?

The third myth is that copyright law encourages works to be disseminated. This is largely true if the copyright owner wishes the work

³² *Ibid.*, ss. 5(3), 5(4), 11. See *Bouliane c. Service de la musique Bonanza Inc.* (1986), 18 C.I.P.R. 214 (Que. C.A.).

³³ Cf., Alvin B. Kernan, Art and Law, Princeton Alumni Weekly (Oct. 12, 1988), 34, at p. 69: "The appearance in the eighteenth century of copyright laws and the linked ideas of artistic creativity and originality was, as Marxist historians have pointed out, a conversion of ideas into things. The sociological and economic conception of art as property in a producer-consumer society was later reinforced by giving it a psychological base in the creative genius of the individual and a moral base in the notion of plagiarism as a specially abhorrent kind of theft." I am indebted to my colleague Simon Fodden for this reference.

³⁴ Dan Lacy, The Economics of Publishing, or Adam Smith and Literature (1963), 92 *Daedalus* 42, at p. 43.

³⁵ Arguably, the patent system itself has encouraged this trend by diverting greater proportions of society's energy towards the more tangible benefits that science and materialism, which the patent system glorifies, hold out: Cf., Kenneth Clark, Art and Society, in M.C. Albrecht, J.H. Barnett and M. Griff (eds.), *The Sociology of Art and Literature* (1970), p. 635, esp. p. 642 ff.

to be commercialized or publicized.³⁶ If he or she does not, then copyright law with its side-kick, the common law relating to the protection of confidential information, turns into a blunt weapon of censorship. The history of copyright has always been intertwined with that of censorship. What is surprising is how strongly that strand persists to the present day.

Examples abound from all over the world.

In Canada, the federal government persuaded an appellate court to enjoin the publication of a commercial abridgment of a multi-volume published official report on the state of competition in the oil industry. The Crown admitted that it would suffer little economic injury from the abridgment, but the publisher should have asked for permission to publish, which might or might not have been granted. It did not matter that, by the time the wheels of bureaucracy ground their course, the publication would probably have been stale. To cap matters, the publisher had to hand over its stock of infringing books and its profits on sales, and only narrowly missed being stung with an award of punitive damages for having acted so high-handedly! Arguments about the public interest and freedom of expression under the much-lauded Charter of Rights and Freedom were brushed aside.³⁷

In Australia, federal government documents were published in a book demonstrating the muddle into which the government's foreign policy towards the insurgencies in East Timor had fallen. The Australian government asked the High Court to enjoin further publication because the Crown's literary copyright was being infringed. The present Chief Justice of Australia admitted that the public interest favoured publication of the book but allowed the Crown's claim. The Crown was entitled to protect its literary creativity from being admired by the world.³⁸

And in the United Kingdom, there was the saga of former British secret agent Peter Wright and his book *Spycatcher*, in which the British

³⁶ But even this "truth" has its mythology. Thus, although copyright is often said to encourage the dissemination of ideas because only the *form and expression* of the work, not its underlying ideas, are protected (*Cuisenaire v. South West Imports*, [1969] S.C.R. 208, at pp. 211-212), an appellate court recently interpreted and followed British authority to hold that copyright law can protect the form and "the information" in or "substantive content" of a work: *British Columbia Jockey Club v. Standen* (1985), 22 D.L.R. (4th) 467 (B.C.C.A.). This obviously may give copyright owners considerable power to control who may disseminate their work and on what terms.

³⁷ *R. v. James Lorimer & Co. Ltd* (1984), 77 C.P.R. (2d) 262 (Fed. C.A.). The Canadian government has now issued guidelines for obtaining copyright permission. A royalty of ten per cent of net sales revenue is levied, where a work comprises twenty-five per cent or more of government material. Permission may be denied on a number of grounds, including where a department considers the use to be "inappropriate . . . for legal or other specifiable reasons". See Treasury Board of Canada Circular No. 1986-25, dated June 11, 1986, entitled *Crown Copyright*.

³⁸ *Commonwealth v. John Fairfax & Sons Ltd* (1981), 55 A.L.J.R. 45 (Aust. H.C.).

government persecuted Wright through litigation in Britain, Eire, Australia, Hong Kong and New Zealand: "rapidly becoming the most litigated book of all time", said the New Zealand Chief Justice even before half of the worldwide proceedings against Wright had concluded.³⁹ Note that the litigation, based primarily on Wright's breach of confidence to the British government, had nothing to do with whether or not Wright was telling the truth in claiming that M.I.5 had planned to destabilize the Wilson government and assassinate President Nasser of Egypt, and that there was yet another mole in M.I.5 besides Philby, Burgess and company. (Indeed, the British government indicated in the New Zealand courts that it would not contest the truth of Wright's allegations, "primarily for reasons relating to security", so it said.⁴⁰) The tables were turned on Wright: he himself was called a traitor for talking about possible traitors in British intelligence! The British judges finally threw in the towel after *Spycatcher* was published throughout the world, outside the reach of their injunctions. But they produced much purple prose in denouncing Wright and claiming that, while many things might be of public interest, it was not necessarily in the public interest that the public know them. In an attempt to make Wright's life thoroughly miserable, they gratuitously added that Wright and his publisher would not be allowed to assert any copyright in *Spycatcher* in Britain and that, indeed, the Crown might even be the true copyright owner of *Spycatcher*—though why Her Majesty might want to soil her hands with a work that was, *ex hypothesi*, so treacherous is not explored.⁴¹

The British government's attempt to suppress *Spycatcher* had its private censorship counterpart across the Atlantic in a United States case involving the author of *The Catcher in the Rye*. Ian Hamilton used letters written by J.D. Salinger that he found in a state archive for a biography on Salinger that he was writing. Salinger sued Hamilton to make him drop the letters from the book. Salinger succeeded. The recipient of the letters owned the

³⁹ *A-G (U.K.) v. Wellington Newspapers Ltd*, [1988] 1 N.Z.L.R. 129, at p. 133 (H.C.), Davison C.J., refusing an injunction; aff'd, *ibid.*, 161 (C.A.), leave to appeal to the Privy Council denied (*ibid.*, 180, at p. 183) by the Court of Appeal, so as to prevent the Privy Council being placed in the "invidious position" of determining what the public interest of New Zealand required.

⁴⁰ *Ibid.*, at p. 170 (C.A.), agreement signed by counsel acting for the British government and produced to the court.

⁴¹ *A.G. v. Guardian Newspapers Ltd (No. 2)*, [1988] 2 W.L.R. 776 (H.L.). See, generally, Yvonne Cripps, *The Legal Implications of Disclosure in the Public Interest* (1986).

After the decision was handed down, an unmuzzled Guardian stated the conundrum it saw arising from the Peter Wright litigation: "Either the man—grudges or not—is telling the truth, or an approximation to it. In which case, the business of preventing publication is the merest flim-flam of a sideshow, and the main duty of an elected government is investigation, prosecution and swilling out secret stables. Or the poor old boy is and was off his rocker. In which case, the real point is finding how someone as deranged and, basically, fascist as Peter Wright was allowed for so many years to bug and brief and vet at the heart of British intelligence." Comment, At the end, the judges find the real world, *Guardian*, October 14, 1988, p. 22.

property in the paper,⁴² but Salinger owned the literary copyright. Hamilton could use the ideas contained in the letters but could not reproduce their expression.⁴³ Note that Salinger did not write the letters because he thought he could make money from them. He would have written them whether or not the copyright laws existed. He enlisted copyright law to assist him in maintaining his self-imposed seclusion and to dissuade meaningful biographies being written about him. In the end, of course, Salinger failed in his principal object. Hamilton's book *was* published, but it now lacked the authenticity that Salinger's actual expression would have thrown on its subject. But the threat of such proceedings now hangs over the head of every biographer unauthorized by a recalcitrant subject or the subject's heirs and affects the way in which such works are written.

A private censorship story even more dramatic than Salinger's occurred in Canada in the early 1900s. The publishers Morang & Co. commissioned the distinguished historian, William D. Le Sueur, to write a history of William Lyon Mackenzie for the *Makers of Canada* series. Le Sueur got access to Mackenzie's papers from the heirs, telling them he was writing for the series. Both publisher and heirs expected the sort of hagiography that passed for much historical and biographical writing in the nineteenth century and which is still churned out to flatter the egos of the subject and his or her progeny. But on Le Sueur's interpretation, Mackenzie was not a maker of Canada: Canada was made despite, rather than because of, Mackenzie's efforts. When Le Sueur turned in his manuscript, his publisher was appalled and so were Mackenzie's heirs, to whom the publisher

⁴² The owner of property in the piece of paper may of course choose to destroy the paper. Consider the controversy stirred by James Joyce's grandson, who recently destroyed some of his aunt's correspondence and has refused permission to biographers to quote from other family correspondence of which he is the copyright owner by descent: Caryn James, *Joyce Family Letters in Literary Debate*, N.Y. Times, Aug. 15, 1988, pp. 13, 16. For a professional academic historian's view on this subject, see Douglas Hay, *Archival Research in the History of the Law: A User's Perspective* (1987), 24 *Archivaria* 36, esp. p. 44 ff., on the differing points of view of historians and lawyers to the accessibility of potentially embarrassing documentary information.

⁴³ *Salinger v. Random House Inc.*, 811 F.2d 90 (C.A. 2, 1987); cf. Pierre Leval, *Fair Use or Foul?* (1989), 36 Jo. Cop. Soc. U.S.A. 167, where the trial judge in *Salinger*, whose decision was reversed, gives a spirited justification of his original decision ("It has been exhilarating to find myself present at the cutting edge of the law, even though in the role of the salami": *ibid.*, p. 168).

Hamilton rewrote the book, which appeared in 1988 as *In Search of J.D. Salinger*. When asked how he felt about writing other biographies, Hamilton reportedly said: "Extremely reluctant. The subject would have to be very, very dead": *Time*, May 23, 1988, p. 69. But this would not help him in countries where protection in unpublished works is perpetual, such as Canada: Copyright Act, *supra*, footnote 23, s. 7. True, a Canadian historian, who used letters from a state archive in his book, managed to escape a claim of copyright infringement brought by the writer's descendants, but only because the court held that the person who had donated the correspondence to the archive held (unusually) both the copyright and the property rights in the correspondence and had intended to transfer both rights absolutely to the archives: *Bourassa v. Ouellet*, *supra*, footnote 28.

showed the work. They pressured Morang not to publish. Not only did Morang not publish but, in those pre-photocopier days, it refused to return Le Sueur's sole copy of his manuscript. Le Sueur had to sue for its return and won only by the skin of his teeth (a 3-2 decision) before the Supreme Court of Canada.⁴⁴ But this was not the end of Le Sueur's troubles. When he decided to publish the manuscript elsewhere, Mackenzie's heirs sued to prevent his doing so. They said that they would never have given access to the papers if they had known that Le Sueur would do a hatchet job on the name of their illustrious forebear. Le Sueur had got access only on the basis that he would depict Mackenzie as a maker of Canada, not a "puller down"; he had broken this implied agreement or "confidence" by writing as he did. The Ontario courts agreed with the heirs: Le Sueur was enjoined from publishing. He might own the product of his brain but he could not reveal it.⁴⁵ Le Sueur did not live to see his biography of Mackenzie published. Only in 1979, seventy years after Le Sueur wrote, was the work published, presumably because it could now do no harm. Other historians had in the meantime published similar conclusions relying on different material.

In all these cases, the defendant claimed some variant of the defence that it was dealing fairly with the plaintiff's work or otherwise acting in the public interest. In all the cases, the defence failed. Copyright and theories of confidential information here run counter to democratic ideals and tend to enclose rather than disseminate knowledge. Of course, as the Peter Wright and the J.D. Salinger cases show, these laws are not always fully effective, given the greater ease with which technology now allows communications to occur and spread; but Peter Wright's case also demonstrates that the laws of copyright and confidential information, especially in the hands of a determined government with almost infinite legal and financial resources, can be potent weapons of harassment against all but the strongest-willed and deep-pocketed defendant.

⁴⁴ *Morang & Co. v. Le Sueur* (1911), 45 S.C.R. 95.

⁴⁵ *Lindsey v. Le Sueur* (1913), 29 O.L.R. 648 (App. Div.), affing (1913), 27 O.L.R. 588 (H.C.). The saga is retold by Cameron Harvey and Linda Vincent, *Mackenzie and LeSueur: Historians' Rights* (1980), 10 Manitoba L.J. 281.

Harvey and Vincent claim that the Ontario courts' decision was "probably not sustainable" at law (*ibid.*, at p. 288). Even if they are right, one wonders whether, if a similar high-profile case were to occur today, a court would reach a different result. In the 1968 case of *Bourassa v. Ouellet*, *supra*, footnote 28, although finding against the plaintiffs on the copyright infringement issue, a Quebec court held that the defendant historian had defamed the plaintiffs' family name by suggesting that their forebears' correspondence revealed signs of mental instability. It granted damages for the defamation, causing the publishers to withdraw the book from circulation.

Perhaps it is as true now, as it was in Le Sueur's day, that a society has difficulty in tolerating certain views to become current about its history, and that courts may prefer orthodoxy over heterodoxy in this sphere as much as they do in others.

II. *Patents*

So far, I have spoken mainly about the copyright system. What of patents?

The theory of the patent law is that if I invent something—a new machine, drug, process or method of doing something, or an improvement to an existing machine—I can apply to the Patent Office for a patent on my invention. If my discovery is something new, useful and inventive—that is, not something that any skilled worker could have done without much difficulty—then I will get a patent for a period that varies from country to country (in Canada, previously seventeen years from date of grant, now as from October 1, 1989, twenty years from date of application). The patent allows me to stop anyone else making, using, importing or selling my invention, whether they copied my invention or created it independently without ever having heard of or seen my work. Unfortunately for inventors, however, patents apply only in the country of grant: if I want protection elsewhere, I have to apply for patents country by country—and quickly, for the first sale or publication of the invention in any country will often bar the availability of a patent in others.⁴⁶ Patenting is expensive, as I will need the help of a patent agent or patent attorney to process the application—and these professionals do not come cheaply.⁴⁷

A. *Are Patents a Good Thing?*

It depends to whom you speak. Members of the patent bar and judges who try patent cases (who, in their previous incarnation as lawyers, often litigated them) generally unite in lauding the virtues of the system. One hardly expects them to do otherwise. They may have families to support

⁴⁶ A mistake can be costly. The Hayes telecommunication standard for computer modems was patented in North America but, because Hayes failed to file in Europe within a year of the North American filing, its European patents lack this claim and Hayes can recover no royalties from European modem manufacturers who use its system: Barry Fox, *Patents in the pending tray*, *Guardian*, Feb. 9, 1989. Canada's accession in 1989 to the Patent Cooperation Treaty will reduce the paperwork and cost involved in filing fresh applications in many countries: one application will serve equally as an application in such other countries as the applicant nominates.

⁴⁷ The cost of patenting and litigating has provided grist to the novelist's mill at least since Charles Dickens' *Poor Man's Tale of a Patent* (1850), (conveniently reproduced in Jeremy Phillips, *Charles Dickens and 'Poor Man's Tale of a Patent'* (1984)). See, too, John Steinbeck's 1954 letter to a friend: "My grandfather Sam Hamilton was always inventing things and patenting them. Mother claimed he kept the family broke with fees to patent lawyers. When he got a good one it was stolen so fast it whistled. And then he kept us broke with an infringement suit which he lost through running out of money."; Elaine Steinbeck and Robert Wallsten (eds.), *Steinbeck: A Life in Letters* (1981), p. 493.

This notwithstanding, a nationwide shortage of patent attorneys was recently reported in the United States: Elizabeth Fowler, *A Demand for Patent Attorneys*, *N.Y. Times*, Oct. 25, 1988.

or may have grown to accept the system uncritically from working so long and so closely with it.⁴⁸

But theirs is only one view of the world. The disadvantages of patents have often been revealed by those professing the dismal science. True, in the heyday of industrialization, theorists such as Adam Smith and Jeremy Bentham claimed that patents were necessary to encourage invention at no social cost, but later commentators have been more sceptical. Calling the patent system a "huge mistake", F.W. Taussig (and later A.C. Pigou) thought that patents neither gave very much to nor took very much from the public. Arnold Plant went further to claim that patents were positively detrimental, except, unusually, where research was so costly that no short-run market reward was likely. More recently, Kenneth Arrow has claimed that patents are indeed useful, but direct government investment in invention achieves better results.⁴⁹ The views of some modern economists who vigorously *support* retention of the patent system are particularly revealing. Candidly admitting that the system has, in their words, weaknesses and absurdities and is illogical, wasteful, crude and inconsistent, they conclude:

It is almost impossible to conceive of any existing social institution so faulty in so many ways. It survives only because there seems to be nothing better.⁵⁰

Edith Penrose reached a similar, more moderately phrased, conclusion in the 1950s:⁵¹

If national patent laws did not exist, it would be difficult to make a conclusive case for introducing them; but the fact that they do exist shifts the burden of proof

⁴⁸ Although some patent lawyers do criticize the system, especially when speaking to one another (see, e.g., the collection of papers in AIPPI, *Venetian Patent Law* (1974)), their general tendency uncritically to favour extending patentability wherever possible has been noted. Thus, examining the *amici curiae* briefs in computer software patentability cases and noting that the question might "apparently" be affected by "institutional bias", Stevens J. (dissenting with three other justices) said, only thinly veiling his reproach: "In each of those cases, the spokesmen for the organized patent bar have uniformly favored patentability and industry representatives have taken positions properly motivated by self-interest": *Diamond v. Diehr*, 450 U.S. 173, at p. 217 (1981).

⁴⁹ The views of Bentham, Taussig, Pigou, Plant and Arrow are succinctly discussed by Steven Cheung, *Property Rights and Invention* (1986), 8 *Research in Law & Economics* 5, *passim*.

⁵⁰ John Jewkes, David Sawers and Richard Stillerman, *The Sources of Invention* (2nd ed., 1969), pp. 187-188. After this damning indictment, the authors justify the system's retention by claiming that it is the only practicable way to reward the "individual inventor or the small producer struggling to market an idea": *ibid.*, at p. 188. The Economic Council of Canada partly relied on this evidence to support retention of the patent system, while noting that the number of Canadian patents granted to independent inventors, as compared with corporations, fell from 97.3% in 1908 to 36.5% in 1968, and that only 5% of all Canadian patents granted went to Canadians: *Report on Industrial and Intellectual Property* (1971), ch. 4. Statistics in other industrialized countries are little different: over 80% of all U.S. patents are granted for employee inventions, as are 90% of all useful patents in France and Germany: see, *Ingersoll-Rand Co. v. Ciavatta*, 8 U.S.P.Q. (2d) 1537, at p. 1542 (N.J. Sup. Ct., 1988).

⁵¹ Edith Penrose, *The Economics of the International Patent System* (1951), p. 40.

and it is equally difficult to make a really conclusive case for abolishing them. Few deny, however, that there are very serious defects in the system today and minor reforms of the patent law are fairly frequent in most countries. Attempts at reform, particularly if they tend to reduce the scope of the monopoly, are violently attacked and usually misrepresented by vested interests, but it should be clear by now that even if a reduction in the patent monopoly is recommended such a recommendation can hardly be regarded as an attack on "the rights of man in their very essence".

These admissions of the system's faults have prompted others to look for something better. Thus, Michael Goldhaber has claimed that:⁵²

Instead of encouraging beneficial innovation, . . . the effect of the intellectual property laws may be more to aid in the concentration of wealth and raise profits. The firms that benefit can then use their increased power to further prevent competition from outside innovators and thus increase their control over the direction of innovation as a whole. State power ought not to be used in this manner—to strengthen the already strong. Rather, it should help to promote greater equality. In conferring wealth on innovators, it is well to remember also that their achievements, no matter how great, rest on a basis of prior inventions and discoveries of society as a whole—many of which have already been paid for directly by the federal government.

....

[A] democratic innovation policy . . . should promote socially beneficial innovation as fast as society can in fact benefit. The innovation process should be as open and democratic as possible, recognizing that innovation is ultimately a process of change in which everyone in society participates in one way or another. There should be quick response to negative impacts. The policy should not promote inequality through concentrating wealth, nor should it encourage repressive measures.

Goldhaber goes on to propose that the patent and copyright systems, insofar as they deal with technological innovations, be replaced by an Intellectual Claims Act, supervised by a Commission that would grant intellectual property claims with an eye to furthering the policies Goldhaber states above. Proposals such as these, which would require the radical reconsideration of both national and international intellectual property laws, represent a healthy countertrend to the modern movement simply to expand and intensify protection. Although creators' groups have sometimes appeared at the forefront of this movement, more often the pressure has come from

⁵² Michael Goldhaber, *Reinventing Technology* (1986), ch. 10. Views such as these have received official recognition. In the context of copyright, see, e.g., U.S. Congress, Office of Technology Assessment, *Intellectual Property Rights in an Age of Electronics and Information*, OTA-CIT-302 (Washington, D.C., 1986), p. 14: "... intellectual property policy can no longer be separated from other policy concerns. Because information is, in fact, central to most activities, decisions about intellectual property law may be decisions about the distribution of wealth and social status. Furthermore, given the unlimited scope of the new technologies and the growing trade in information-based products and services, U.S. intellectual property policy is now inextricably tied to international affairs. Communications policy, too, is becoming more linked to intellectual property policy, as more and more intellectual works are being transmitted by media such as cable television, telephone lines, and communications satellites. Today, intellectual property issues also give rise to privacy concerns as copyright holders seek technical means to monitor use. In making decisions about intellectual property policy, therefore, Congress must consider a whole new range of issues, and decisionmakers in all these areas will need to strive for greater coordination."

groups with vested interests in the present system, who are able effectively and strategically to mobilize creator groups in furtherance of their perceived common interests.⁵³

I shall not dwell on the paradox inherent in the fact that supporters of inventive activity often react so vehemently when any move is proposed to modify, inventively or otherwise, a system devised in the seventeenth century. Nor shall I catalogue the many faults of the present patent system, a task fully done by others.⁵⁴ I shall simply deal mainly with one aspect that suggests the degree of rethinking that may require to be done: the concept of invention itself.⁵⁵

B. *Patents do not Protect "Mere" Theories*

If the logic of the patent system's grant of incentives and rewards to individuals is to be pursued, then there is a case for expanding the definition of invention. Before the Industrial Revolution restructured labour on divided lines, there was no clear-cut distinction between discovery and invention, basic and applied research, and science and technology. Although we are now rediscovering the artificiality of these divisions, the patent system continues to reinforce them. Thus, everyone agrees that basic research such as Albert Einstein's work on relativity is unpatentable. Patent law does not protect mere discoveries of how the world works. But as soon as someone applies the theory of relativity to a commercial use—"changes", rather than just "discovers", nature—they can get a patent for the end product or process employing the theory. We say, on the one hand, that the giant's reward should be the satisfaction of discovery and fame; we say, on the other, that the mechanical pygmy is an inventor and reward him or her with a patent. There is a value system inherent in this: the only results for which society is prepared to pay are practical results; theory's rewards are intangible. The pygmy who uses the giant's theory should not have to pay the giant for it.⁵⁶

⁵³ And once in place, patent and copyright systems have enormous staying power. One commentator has astutely observed: "Copyright and patent acts are so mind-bogglingly complicated that they usually last at least a generation because few legislators can bear the experience twice": Ehrlichman, *Lobbyists with designs on the complex art of copyright*, *Guardian*, July 26, 1988.

⁵⁴ *E.g.*, Jewkes, Sawers and Stillerman, *op. cit.*, footnote 50.

⁵⁵ Some of these thoughts echo those of F.-K. Beier, *Future Problems of Patent Law* (1972), 3 IIC 423, which I came across after delivering the lecture and which (though I did not not consciously have it in mind at the time) I must have read some time ago. This unwittingly reinforces a theme of this paper, that in intellectual property there is hardly anything new under the sun.

⁵⁶ In the literary sphere, P.G. Wodehouse recognized a moral obligation to this effect even before he had become famous. A friend suggested to Wodehouse the idea of the main character in Wodehouse's *Love Among the Chickens*. Wodehouse acknowledged the contribution in the dedication to the book and spontaneously sent him a third of the royalty proceeds from the first edition: David Jasen, P.G. Wodehouse: *A Portrait of a Master* (1981 rev. ed.), p. 37.

We might consider a reform such as the grant of a special sort of patent to the theorist. This "theory patent" might allow other theorists to build on the knowledge revealed, but might require entrepreneurs and patentees applying the theory to pay the theory patentee a proportion of their revenues, based on the extent to which the theory contributed to their application.⁵⁷

C. The Standard of Invention is too Low

In other respects, the standard of invention is set too low. Patent lawyers advise that virtually any new gadget or way of doing things is patentable: it is just a question of skilful drafting.⁵⁸ There is, of course, an element of drumming up business in such advice, but there is also some truth. Many patents are known to be invalid, but to challenge them by litigation is a business decision: are the costs of taking a licence on a per unit royalty lower than the costs and uncertainties of litigating invalidity?⁵⁹ If so, better to be licensed than to fight.⁶⁰ And there are also

⁵⁷ Contrary to the Canadian position (see *Schlumberger v. Comm. of Patents* (1981), 56 C.P.R. (2d) 204 (Fed. C.A.)), the U.S. Patent Office is now granting patents for algorithms, even where they constitute most of the claim, so long as a general application is stated. Some fear that, as a result, "mathematics will become poorer as mathematicians become richer": Edmund Andrews, *Equations Patented: Some See a Danger*, N.Y. Times, Feb. 15, 1989, pp. 25, 30. Whether these patents will eventually survive judicial scrutiny remains to be seen: cf., *In Re Grams*, 12 U.S.P.Q. (2d) 1824 (C.A., Fed. Circ., 1989), denying a patent for an algorithm for analyzing clinical data.

My suggestion seeks to reward the theoretician without inhibiting further theoretical research. It resembles a proposal internationally debated for some decades after World War I, but finally dropped under industry pressure: see J. Swanson, *Scientific Discoveries and Soviet Law* (1984), ch. 2; cf., Beier, *loc. cit.*, footnote 55, at p. 438 ff.

⁵⁸ Consider this advice from a patent lawyer: "The inventor is often the worst possible person to assess whether or not an invention is patentable. By definition, the inventor has exercised some ingenuity, but he may not however truly recognize or appreciate this fact. To the inventor, therefore, the invention may seem completely old or obvious . . . *In many cases the slightest difference between the invention and the prior art will be sufficient to obtain a patent, particularly in the hands of a skilled patent agent.*" Frank Farfan, *What Should the General Practitioner Know about Patents, Anyway?*, in *Intellectual Property for the General Practitioner*, Canadian Bar Association—Ontario, Continuing Legal Education (November 19, 1988), pp. 3-4 (emphasis in original).

⁵⁹ "The fear of a costly law suit is apt to deter any but wealthy competitors from contesting a Patent": *Natural Colour Kinematograph Co. Ltd (in Liq.) v. Bioschemes Ltd* (1915), 32 R.P.C. 256, at p. 266 (H.L.), by Earl Loreburn. And, elaborating the modern British experience, Barry Fox, *loc. cit.*, footnote 46, says: "The sad truth is that playing with patents is like playing poker. Goodness, moral rights and fair dealing have little to do with the final result of a dispute. The player with the best hand has less chance of losing, but no guarantee of winning. A moat of techno-legal terms surrounds natural justice. It is crippling expensive to cross. So patent negotiation is brinkmanship. No one wants to push a case so far that it passes out of the hands of patent agents, who can charge over £100 an hour for their time, into the hands of specialist lawyers who will charge even more. If the case goes to court, a room full of bewigged counsel and expert witnesses will clock up thousands of pounds a day in fees, like a berserk taxi-meter. A patent case in the High Court can easily cost £100,000."

free-rider problems in litigating invalidity: not only will the successful challenger be free to make the product, but so too will its competitors, who have not borne the costs of litigation. Thus, many invalid patents exist, adding to the costs of goods and services, simply because it does not pay anyone to challenge them.

There is no insuperable difficulty in raising the standard of invention beyond the "mere scintilla" currently required, in order to eliminate a great number of these mundane inventions and marginal patents. Whether an applicant has demonstrated that he or she has produced an invention or an unpatentable "workshop improvement" is already a highly subjective decision, as many judges frankly admit.⁶¹ Yet modern courts unabashedly demonstrate a pro-patent bias, even when faced with the simple "invention".⁶²

Consider the recent United States proceedings in *Roberts v. Sears, Roebuck & Co.*⁶³ A basement inventor produced a quick-release socket wrench for which a patent was obtained. His suit for infringement was initially defeated by a Court of Appeals' holding that the improvement was obvious: "not the kind of contribution unlikely to be induced except by the promise of a monopoly . . . we think it would have been made anyway, and soon".⁶⁴ So said Judge Posner for the unanimous three-person

⁶⁰ In British Commonwealth countries, the decision to be licensed carries risks that may not, after such cases as *Lear Inc. v. Adkins*, 395 U.S. 653 (1969), and *Meehan v. PPG Industries Inc.*, 802 F. 2d 881 (C.A. 7, 1986), be present in the U.S.: the Commonwealth licensee is estopped from challenging the validity of the licence during its pendency and, unless the contract or local legislation provides the contrary, will even have to continue paying royalties if the patent is held invalid: *African Gold Recovery Co. Ltd v. Sheba Gold Mining Co.* (1897), 14 R.P.C. 660; *Trubenizing Process Corp. v. John Forsyth Ltd*, [1943] S.C.R. 422, at p. 432; *Kerbing Consolidated Ltd v. Dick*, [1972] N.Z.L.R. 911 (S.C.); *Culzean Inventions Ltd v. Midwestern Broom Co. Ltd*, [1984] 3 W.W.R. 11, at pp. 31-33 (Sask. Q.B.).

⁶¹ "To the casual observer, judicial patent decisions are the adventures of judges' souls among inventions. For a decision as to whether or not a thing is an invention is a 'value' judgment. So are many judicial judgments in other legal provinces, but 'invention' is a peculiarly elusive standard": *Picard v. United Aircraft*, 53 U.S.P.Q. 563, at pp. 568-569 (C.A. 2, 1942), by Frank J. Collier J. approvingly cited this passage in *Farbwerke Hoechst AG v. Halocarbon (Ont.) Ltd* (1974), 15 C.P.R. (2d) 105, at p. 112 (Fed. T.D.), aff'd (1979), 42 C.P.R. (2d) 145 (S.C.C.), rev'ing (1976), 28 C.P.R. (2d) 63 (Fed. C.A.).

⁶² Recall Pigeon J.'s well-known dictum that "inventors are not to be looked upon as Shylock claiming his pound of flesh": *Burton Parsons Chemicals Inc. v. Hewlett-Packard (Can.) Ltd* (1974), 17 C.P.R. (2d) 97, at p. 106 (S.C.C.). A commentator has noted that Pigeon J.'s approach was "generous, understanding and liberal from the viewpoint of patentees": George Stewart, Mr. Justice Louis-Philippe Pigeon and Intellectual Property (1987), 3 I.P.J. 229, at p. 241.

⁶³ 723 F. 2d 1324 (C.A. 7, 1983). This strenuously contested litigation had come before the Court of Appeals three times already: see, 573 F. 2d 876 (1978); 617 F. 2d 460 (1980); 697 F. 2d 796 (1983).

⁶⁴ 697 F.2d, at p. 798. On the rehearing, 723 F.2d, at pp. 1345-1346, Posner J. (now dissenting) elaborates the point.

panel, applying, as befits the doyen of the law and economics movement, an economic test of obviousness. On reargument before a full bench of the Seventh Circuit, however, Posner's view was reversed by a majority of the court. The court was clearly amazed by what the interaction of a ball, a groove and a spring can achieve in the physical world, and suspicious of applying any sort of economic theory to test inventiveness. Is this statement from the majority opinion not revealing: "It is obviously easier to use the wrench than it is to understand what makes it easier to use"?⁶⁵

One may sympathize with the court's bedazzlement with the marvels of elementary mechanics, and with its desire to recognize the plight of the lone basement inventor pitted against a corporation that appears to have dealt sharply with him. But these intuitions are misplaced. It will take more than decisions like these to remove the lone inventor off the list of endangered species and, in the meantime, the court's low standard of inventiveness enures to the benefit of corporate improvers. Admitting that the concept of invention is already highly subjective, we need to go at least as far as Posner's test, unless we stop paying lip-service to the pretence that the patent system spurs creativity that would not exist without it.

D. *Patents Should Benefit Society*

We may want to go further and require that patents should be granted only for inventions that the applicant can demonstrate will substantially benefit society.

Granting a patent is not a neutral act. Not all inventions will necessarily benefit society.⁶⁶ This was recognized as far back as the first British patent law in 1624: patents for inventions that were "mischievous to the State, by raising prices of commodities at home, or hurt of trade, or generally inconvenient" should not be granted.⁶⁷ The language about "raising prices of commodities at home" may have been legislative double-talk for, even before the statute, people knew full well that patent monopolies inevitably raised prices.⁶⁸ So, too, the prohibition against "generally inconvenient" patents now appears as window-dressing, for few patents have been successfully challenged on this ground. Yet this provision as a whole

⁶⁵ 723 F.2d, at p. 1336.

⁶⁶ Heskett, *Industrial Design* (1980), p. 195, makes the same point in dealing with industrial designs: "'good design', however defined in terms specific to an artefact or mechanism, cannot automatically be associated with beneficial ethical or political ideals; such juxtapositions are frequent but do not constitute an equation."

⁶⁷ Statute of Monopolies 1624, 21 Jac. 1, c. 3, s. 6.

⁶⁸ *The Case of Monopolies (Darcy v. Allein)* (1602), 11 Co. Rep. 84b, at p. 86b (Q.B.): "[t]here are three inseparable incidents to every monopoly against the commonwealth, sc. 1. That the price of the same commodity will be raised, for he who has the sole selling of any commodity may and will make the price as he pleases ...".

demonstrates that patents were granted for a social purpose, and this insight is as true now as it was then.

Instead of requiring a defendant to disprove a patent's utility, we could require the applicant initially to show what actual or potential social value the invention has that would warrant a patent grant. We might go further and recognize that, in practice, the patent system does not encourage enough investment in applied research to preserve such fundamental necessities of the human condition as the environment and the repairing of damage done to it.⁶⁹ To overcome this problem, society could modify the patent system, by allowing grants only for activities that are deemed, from time to time, to be particularly beneficial to it and by denying patents (or reducing their term or intensity) in all other areas.

E. Pioneering Patents

Patent applications at the frontiers of knowledge should be carefully scrutinized. New multicellular life forms, for example, are now patentable in the United States. The United States Supreme Court has endorsed the view that "anything under the sun made by man" (and we presume, woman) is patentable.⁷⁰ Acting on this opinion, the United States Patent Office recently held that a new artificially bred and non-naturally occurring form of Pacific oyster was patentable subject-matter,⁷¹ and the first United States patent for a genetically engineered animal ("the Harvard mouse"), was granted in 1988.⁷²

⁶⁹ Even strong proponents of the patent system, like the general secretary of AIPPI (l'Association Internationale pour la Protection de la Propriété Industrielle), have admitted that the patent system is deficient in this respect: Rudolf Blum, *The Threat to our Environment and the Protection of Intellectual Property*, in AIPPI, *op. cit.*, footnote 48, p. 42, at p. 55 *ff.*, esp. p. 60. Blum proposes some additional system to encourage investment in areas the patent system does not encourage. He does not consider another possibility, namely, that the patent system itself should be fine-tuned to achieve his goals, to "sufficiently induce and produce all of the inventions urgently needed now and tomorrow" (*ibid.*, p. 60). See also Beier, *loc. cit.*, footnote 55, at pp. 441-445.

⁷⁰ *Diamond v. Chakrabarty*, 447 U.S. 303, at p. 309 (1980).

⁷¹ *Ex p. Allen* (1987), 2 U.S.P.Q. (2d) 1245 (U.S. Board of Patent Appeals). See the notice published by the Commissioner of Patents and Trademarks in 1077 Official Gazette 24 (April 21, 1987): "nonnaturally occurring non-human multicellular living organisms, including animals" would thenceforth be considered patentable subject-matter. This view is subject to judicial review but has nonetheless been upheld as a valid administrative guideline: *Animal Legal Defense Fund v. Quigg* (1989), 9 U.S.P.Q. (2d) 1816 (D.C., N.D. Cal.).

⁷² The patent was widely publicized as being simply for a new mouse. In fact, it is much broader. U.S. Patent #4,736,866 of April 12, 1988, naming researchers Philip Leder and Timothy A. Stewart as inventors, is headed "Transgenic Non-Human Mammals". Claim 1 of 12 claims, in descending order of generality, is for a "transgenic non-human mammal all of whose germ cells and somatic cells contain a recombinant activated oncogene sequence introduced into said mammal, or an ancestor of said mammal, at an embryonic stage". The new animals are said to be useful, amongst other things, as testers for suspected cancer-causing materials.

Other countries have proceeded more cautiously. Thus, in Europe, life forms more complex than micro-organisms, such as plant varieties and animals, are unpatentable.⁷³ In Canada, the Supreme Court, while not reversing holdings of the Patent Office and the Federal Court of Appeal that plants are unpatentable, has rendered it virtually impossible for applications for such patents to comply adequately with the requirement that the invention be fully disclosed so as to be reproducible by a third party.⁷⁴ The Canadian Patent Appeal Board, however, indicated its willingness to accept applications for multicellular life forms, five years before the United States Patent Office took this plunge with the Pacific oyster.⁷⁵

We are not persuaded that the idea [that plants, animals, and insects created by man are patentable] is so far-fetched or illogical. If an inventor creates a new and unobvious insect which did not exist before (and thus is not a product of nature), and can recreate it uniformly and at will, and it is useful (e.g., to destroy the spruce bud worm), then it is every bit as much a new tool of man as a micro-organism. With still higher life forms, it is of course less likely that the inventor will be able to reproduce it at will and consistently, as more complex life forms tend to vary more from individual to individual. But if it eventually becomes possible to achieve such a result, and other requirements of patentability are met, we do not see why it should be treated differently.

The morality, ethics and legal⁷⁶ and economic implications of granting

At the time the patent was granted, there were apparently 14,000 biotechnology applications pending, including 21 for other animals: Keith Schneider, *Biotechnology Advances Make Life Hard for Patent Office*, N.Y. Sunday Times, Apr. 17, 1988, p. E5.

⁷³ European Patent Convention 1973, Art. 53. As for micro-organisms, see Chartered Institute of Patent Agents, C.I.P.A. Guide to the Patents Act 1977 (2nd ed., 1984), pp. 7-8 (patentable); *Micro-Organisms*, Case B52/84, [1986] 4 European Patent Office Reps. 204 (Austrian Pat. Off., App. Div.) (unpatentable). Note too that in *Genentech Inc.'s Patent*, [1989] R.P.C. 147 (C.A.), a British patent for a DNA genetic engineering advance for artificially producing cells found in nature was revoked as pertaining to mere "discovery" rather than "invention".

⁷⁴ *Pioneer Hi-Bred Ltd v. Comm. of Patents* (1987), 11 C.I.P.R. 165 (Fed. C.A.), holding an artificially cross-bred soybean variety unpatentable subject-matter, *aff'd* on other grounds (1989), 60 D.L.R. (4th) 223 (S.C.C.).

Many countries have a separate system to protect new plant varieties: e.g., the Plant Varieties and Seed Act 1964 (U.K.), c. 14. Legislation granting rights to plant breeders may also be coming to Canada: see Consumer & Corporate Affairs Canada, Bureau of Policy Coordination, *Patenting Life Forms & Processes* (August 1986), CCAC Paper No. 192 25005 E 86-08. Indeed, a Plant Breeders' Rights Bill, versions of which were given first reading in the Canadian House of Commons in 1980 and 1988, was reintroduced as Bill C-15 on May 8, 1989.

⁷⁵ *Re Abitibi Co.* (1982), 62 C.P.R. (2d) 80, at p. 90 (Pat. App. Bd.).

⁷⁶ Biotechnology patents have generated problems such as whether the owner of the living material used to develop the invention has any proprietary interest in the patent. Thus, a patient, whose spleen was removed and its cells used, without his informed consent, by researchers to develop a patented therapeutic cell-line, has asserted a property right in his cells and a claim to share in the proceeds of their exploitation: *Moore v. Regents of the University of California*, 249 Cal. Rptr. 494 (C.A., 2nd Dis., 1988), holding, over one dissent, for the patient. The case is currently before the Supreme Court of California: Stephen Labaton, *Spleen Suit Vexes Biotech Industry*, N.Y. Times, Feb. 6, 1989, p. 22.

patents to new life forms have not yet been fully debated. Everyone agrees that the Patent Office is not the place to do this; but it should be done somewhere. Is there not a need for an initial and ongoing scrutiny of such applications and patents? If they do prove "mischievous to the State", should not the state be able to intervene and revoke them?⁷⁷

F. Publicly Disclosing the Invention

The requirement that the invention be fully disclosed is said to lie "at the heart of the whole patent system";⁷⁸ yet it is a heart that beats but faintly. Despite many attempts to curb a practice stretching back as far as the eighteenth century,⁷⁹ the United States Supreme Court more recently noted the continuing presence of a "highly developed art of drafting patent claims so that they disclose as little useful information as possible—while broadening the scope of the claim as widely as possible".⁸⁰ Moreover, the invention need be understood only by those skilled in the relevant technology. Intelligent members of the public are disenfranchised: they have no idea of how a new invention may affect them because the language of the patent is not and need not be addressed to them. A judge who once suggested that a patent should be intelligible to the ordinary person was firmly rebuffed on appeal by the Supreme Court of Canada:⁸¹

⁷⁷ Barry Hoffmaster, *The Ethics of Patenting Higher Life Forms* (1988), 4 I.P.J. 1, after reviewing the moral issues, at pp. 23-24, states that the objections to genetic engineering are "not, at present, compelling", but concludes: "The factors to which these objections point require constant scrutiny, however, and changes in them would warrant a careful reappraisal of genetic engineering's status. What genetic engineering requires, above all, is constant vigilance." *Cf.* Beier, *loc. cit.*, footnote 55, at pp. 428-431.

⁷⁸ *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd.*, [1981] 1 S.C.R. 504, at p. 538, (1981), 122 D.L.R. (3d) 203, at p. 212. The court in *Pioneer Hi-Bred, supra*, footnote 74, applied this principle recently to disallow an application for an artificially cross-bred plant.

⁷⁹ Thus, Richard Arkwright deliberately failed to specify how to construct his patented cotton gins, purportedly "in prevention of an evil, that foreigners [*i.e.*, the French] might not get them": *R. v. Arkwright* (1785), 1 Webster's Patent Cases 64, at p. 68 (K.B.). Buller J. inferred that Arkwright's "object was to get the benefit from the patent so far as putting money in his own pocket, but as to the benefit the public were to receive, it was to be kept back as far as it could": *ibid.*, at p. 67. The patent was revoked on a writ of *scire facias*.

⁸⁰ *Brenner v. Manson, supra*, footnote 5, at p. 534. As one manifestation of this practice, consider what Fox, *loc. cit.*, footnote 46, says about an IBM British 1964-filed patent: "This covers work by Dr. Gene Amdahl and it fills three whole bound volumes on the shelves of the library vaults, equivalent to 300 normal applications. It would take clone makers from now until the next century to analyse IBM's patent folio in the hope of contesting it in court. It will usually be quicker, easier and cheaper to pay a royalty and put up the price of the product so that the customer pays for IBM's poker."

To deter such practices, there should be some effective means of controlling the amount of information a patent can reveal. Too much information can be as bad as too little.

⁸¹ *Consolboard Inc. v. MacMillan Bloedel (Sask.) Ltd., supra*, footnote 78, at pp. 523, 526 (S.C.R.), 215, 218-219 (D.L.R.). Nor does full disclosure require the disclosure of

[A] patent specification is addressed, not to the public generally, but to persons skilled in the particular art. . . . [The inventor is not bound to disclose] in what respect the invention is new or in what way it is useful. He must say what it is he claimed to have invented. He is not obliged to extol the effect or advantage of his discovery, if he describes his invention so as to produce it.

If patents are to form a pool of publicly available knowledge, then they should be accessible generally, not just to the relevant industry. The applicant, who seeks the privilege, should bear the cost of providing this information. The Plain Language movement has gathered pace in relation to contracts and other legal documents. Why should patents be immune?⁸²

G. *Patents as Third World Aid?*

Should there be any obligation on the industrialized developed countries to spread their technologies to less developed countries? This is done only randomly at present. There is a case for treating patents as a form of Third World aid and for recognizing a moral obligation to help countries less fortunate than our own by allowing them to work patents locally (but not for export) either for free or at a reduced royalty. A compulsory translation right for developing countries already exists under international copyright law;⁸³ an analogous principle could easily be applied to patents.⁸⁴

the know-how necessary to render the invention commercially effective, with the result that "many inventions cannot be worked with commercial effectiveness without the associated know-how held by the patentee and not disclosed in the patent": Denis Magnusson, *Scientific Research and New Technology as seen from the Perspective of International Intellectual Property Developments* (1986), *Queen's Law Journal* (International Perspectives) 393, at p. 396.

Beier, *loc. cit.*, footnote 55, p. 445 ff., claims that the function of disclosure has changed today: most inventions are so complex that the patent cannot disclose practically how to work them and any compulsory licensing system (as exists in Canada) to correct patent abuse is seriously defective unless it compels disclosure of associated know-how (*ibid.*, p. 449). More basically, if Beier is right, then the consideration which the patentee is supposed to be giving the public in return for the monopoly has now partially failed. Ordinarily, of course, on unjust enrichment theory, a partial failure of consideration invites a diminution of corresponding benefits—but nobody (including Beier) has hitherto suggested this!

⁸² Consider the "anguished comment" and "perplexed cry" uttered by a Federal Court judge about drafting patent claims: "Claim 1 (to use an example) of this patent has approximately 178 words. The Gettysburg address has, I understand, 270 words. But the Gettysburg masterpiece uses not only words but punctuation, including periods, to convey its meaning. Claim 1 has no periods. It is one long complicated sentence employing approximately 6 commas. It is said that the Patent Rules . . . and the Patent Office require that claims be stated in this way—one sentence. I suspect the real answer is that this drafting method is merely traditional. We lawyers are slaves to tradition . . . In patent suits, claims are often, at best, riddles. When technical words and phrases are all bundled into one huge sentence, the claim passes from riddle to enigma": Collier J. in *Xerox of Can. Ltd v. IBM Can. Ltd.* (1977), 33 C.P.R. (2d) 24, at p. 88, n. 14 (Fed. T.D.).

⁸³ See, e.g., Appendix to the Berne Convention on Literary and Artistic Works, Paris Act 1971; Sam Ricketson, *The Berne Convention for the Protection of literary and artistic works: 1886-1986* (1987), pp. 623 ff.

⁸⁴ A compulsory licensing scheme for developing countries, involving the payment

III. Revisiting Intellectual "Property"

I wish to conclude by returning to the notion of "property" that underlies this area. I can do no better than to cite a passage from a 1985 Canadian parliamentary sub-committee report dealing with copyright reform, A Charter of Rights for Creators:⁸⁵

The Sub-Committee . . . takes the opportunity to assert that "ownership is ownership is ownership." The copyright owner owns the intellectual works in the same sense as a landowner owns land.

Unproved, indeed unprovable, assertions of this kind are endemic to discussions of intellectual "property".

In one sense, of course, these assertions are obviously untrue. One does not see the Committee arguing that this "property" should attract occupancy taxes, as real estate does, or sales tax, as transfers of tangible property generally do.

In legal terms, too, the Committee is on weak ground. United States courts have sometimes used the rhetoric and analogies of property law when dealing with intellectual property, but United States policy advisers have not always shared their views;⁸⁶ nor have British Commonwealth courts, which have generally refused to extend concepts of property unless commanded by legislation.⁸⁷ Thus, the Supreme Court of Canada has said that neither copyright nor confidential information, though sharing characteristics with traditional proprietary claims, should be classified as property either in the civil or the criminal law.⁸⁸

of reasonable royalties, is amongst the alternatives proposed in E.M. Jucker and B.A. Yorke, *The Protection of Industrial Property in Developing Countries*, in AIPPI, *op. cit.*, footnote 48, p. 151, at p. 166. Other possibilities, such as government subsidies encouraging local subsidiaries of foreign corporations to do research work locally, may operate inequitably for the local country: M.K. Berkowitz and Y. Kotowitz, *Patent Policy in an Open Economy* (1979), Working Paper #7926, Institute for Policy Analysis, University of Toronto, pp. 24-25.

⁸⁵ Report of the Sub-Committee on the Revision of Copyright, Standing Committee on Communications and Culture, A Charter of Rights for Creators (1985, Ministry of Supply & Services Canada), p. 9.

⁸⁶ See, e.g., U.S. Congress, Office of Technological Assessment, *op. cit.*, footnote 52.

⁸⁷ See, e.g., in Australia, *Moorgate Tobacco Co. Ltd v. Philip Morris Ltd*, *supra*, footnote 7. Cf., in Canada, *Consumers Distributing Co. Ltd v. Seiko Time Can. Ltd.*, [1984] 2 S.C.R. 583, at p. 596, (1984), 10 D.L.R. (4th) 161, at pp. 171-172: "Any expansion of the common law principles to curtail the freedom to compete in the open market should be cautiously approached. This must be the path of prudence in this age of the active legislative branch where the community's trade policies are under almost continuous review." But see, *Vidéotron Ltée c. Industrie Microlec Produits Électroniques Inc.*, *supra*, footnote 7, at p. 549, holding the code for scrambling pay-television signals to be confidential "propriété intellectuelle" belonging to the television company.

⁸⁸ *Stewart v. The Queen*, [1988] 1 S.C.R. 963, at p. 981, (1988), 50 D.L.R. (4th) 1, at p. 15 ("confidential information is not property"); *Slavutych v. Baker*, [1976] 1 S.C.R. 254, at p. 262, (1975), 55 D.L.R. (3d) 224, at p. 230; *LAC Minerals Ltd. v. International Corona Resources Ltd.* (1989), 61 D.L.R. (4th) 14, at p. 74 (S.C.C.) ("The foundation

In economic terms, too, the language of property is ill-considered here. The very fact that land is physical makes it a scarce resource: there is only a finite amount of land on earth. Capitalist societies allocate property in land and other commodities as a means of ensuring efficient use: the person who values a property most will pay the most for it. Knowledge is not a scarce resource. It is infinite in time and space. It can be used by all without depleting its value. In fact, the more use, the more valuable knowledge often is. Allocating property rights in knowledge makes ideas artificially scarce and their use less frequent—and, from a social point of view, less valuable.⁸⁹

Indeed, the Committee's statement itself is unwittingly a paradox. It is, of course, an unacknowledged borrowing of Gertrude Stein's famous dictum: "a rose is a rose is a rose." Did the committee ask Stein's estate for prior permission to use her aphorism in this way? Did it send a royalty cheque? Will there now be a collecting society formed under the appellation of "The Famous Writers' Famous Sayings' Collective"?

The fascinating thing is that the Committee presumably thought it did no wrong in plagiarizing Stein—and it was no doubt legally correct. But it ignored the implications of its act. "Creative geniuses" or "mere mortals", we all borrow from one another. Art imitates life, life imitates art, and writers imitate writers, as humans imitate other humans in all spheres of life.⁹⁰ The line where imitation becomes impermissible is one drawn for social reasons.⁹¹ It is not pre-ordained by natural law or otherwise.

of the action for breach of confidence does not rest solely on one of the traditional jurisdictional bases for action of contract, equity or property. The action is *sui generis* relying on all three ..."); *Compo Co. Ltd v. Blue Crest Music Inc.*, [1980] 1 S.C.R. 357, at p. 372, (1979), 105 D.L.R. (3d) 249, at p. 281 ("copyright law is neither tort law nor property law in classification, but is statutory law"). Cf., Marie Bourgeois, *Protecting Business Confidences: A Comparative Study of Quebec and French Law* (1988), 3 I.P.J. 259.

⁸⁹ See R.J. Roberts, *Is Information Property?* (1987), 3 I.P.J. 209; Douglas Smith, *Recent Proposals for Copyright Revision: An Evaluation* (1988), 14 Can. Public Policy (No. 2) 175; R.G. Hammond, *The Misappropriation of Commercial Information in the Computer Age* (1986), 64 Can. Bar Rev. 342. See, more generally, Alan Carter, *The Philosophical Foundation of Property Rights* (1989).

⁹⁰ Cf., Kernan, *loc. cit.*, footnote 30: "Creativity and originality have come to seem far more rare than once the case, while imitation appears increasingly inescapable. ... Originality is for [critic Harold] Bloom only a dream, which the modern artist, tormented by an Oedipal need to create something new and different from the work of the fathers, pursues in an endless 'anxiety of influence'—never 'certain precisely when he is quoting', original only in the 'belated' and self-conscious modern sense of misreading those whom he unavoidably plagiarizes, making lucky mistakes when he is trying to copy them down, and culpable only when he copies second-rate writers."

In *Creativity: Genius and Other Myths* (1986), Robert W. Weisberg goes even further: "there may be no thinking except creative thinking, since our ordinary functioning involves successful adaptation to novel situations, and thus meets the criteria for creativity": *ibid.*, p. 147.

⁹¹ "Marking off boundaries in intellectual property is essentially a policy choice which has major implications for innovation. Boundaries that are marked too broadly may impair

Where it should be drawn is emphatically not answered by "ownership is ownership is ownership". Quite apart from their historical untruth, bromides such as these seem curiously old-fashioned and unresponsive to the problems of the modern technological revolution.

The Committee might better have borrowed from Gertrude Stein's dying words. She said to her companion: "What is the answer?" Receiving no reply, Stein then said: "In that case, what is the question?"

We know that the answer is not "ownership is ownership is ownership". Nor is there just one question. If there is any truth to the proposition that intellectual property is a form of property, then there are several questions to be asked, like:

Should society simply set up a market for ideas and allow entrants in that market to sell those ideas to the highest bidder?

Should society be concerned about people who do not have the resources to enter the market, or should their lack of means disentitle them to the power that ideas can bring?

Should society be concerned about the unequal distribution of intellectual property in the same way as it is concerned (or not concerned) about the unequal distribution of traditional property? Or should we try to devise intellectual property laws that do not entrench and enhance existing distributions of power and wealth?⁹² If we worry about the fact that twenty-five corporations in Canada control thirty-five per cent of corporate assets,⁹³ should we not also enquire about the existing patterns of patent and copyright concentration before we reach conclusions about whether or not it is desirable to strengthen or weaken copyright or patent protection?

Should society be concerned that intellectual property laws may help cause people to invest too much time and money in what the law calls "inventive" and "creative" activity, to the detriment of more modest but as worthwhile improvements to existing technology?⁹⁴ Or that the laws may contribute to new technology being introduced and exploited before its potential social impacts can be fully and fairly assessed, because its

the ability of individuals to create, innovate, or improve upon the works of others. Boundaries that are set too narrowly, or that fail to protect the most socially valuable aspects of writings or inventions, may diminish the incentive to create or innovate. To promote science and the useful arts, policymakers must strike an optimal balance between what belongs to a creator and what belongs to the public domain." U.S. Congress, Office of Technology Assessment, *op. cit.*, footnote 52, p. 61.

⁹² *Ibid.*, footnote 52, and accompanying text.

⁹³ Alan Freeman, Free-Trade Pact Creates Winners, Losers, *Wall Street Journal*, Feb. 7, 1989, p. A14.

⁹⁴ See, for example, Lewett, *loc. cit.*, footnote 11, at p. 236: "Too much emphasis on major inventions and 'high technology' tends to obscure the fact that myriad new low technology products and engineering improvements to existing products and processes may contribute as much, particularly in the short run."

promoters naturally want to reap the rewards of monopoly quickly? Or that intellectual property laws may need to be modified or supplemented to encourage activity in areas which society considers particularly necessary for its well-being or survival and which those laws are doing little or nothing to encourage?

In the heat of the battle between owners and users of inventions and creations, questions such as these tend to be overlooked.

We should remember that copyright and patent laws are not isolated and immutable pieces of legislation that, like Topsy, "just grow'd". They are part of our social and economic policy.⁹⁵ To the extent that our society seeks some semblance of social justice,⁹⁶ intellectual property laws, as an important and growing part of that vision, cannot escape scrutiny.

⁹⁵ Any remaining doubts on this score must be stilled by the inclusion of intellectual property provisions in the Canada-United States Free Trade Agreement 1988 and in the negotiations of the current Uruguay Round of the General Agreement on Tariffs and Trade.

⁹⁶ A "commitment to social justice and equality" is, after all, claimed by the Chief Justice of Canada, speaking for the court, as one of "the values and principles essential to a free and democratic society": *R. v. Oakes* (1986), 26 D.L.R. (4th) 200, at p. 225 (S.C.C.).