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William van Caenegem

Bond University, william_van_caenegem@bond.edu.au

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The Public Domain: Scientia Nullius?

WILLIAM VAN CAENEGEM

William van Caenegem, Associate Professor of Law, Bond University, Queensland

The "public domain" in intellectual property law is said to consist of intangible goods that are not subject to exclusive intellectual property rights and which are freely available to be used or exploited by any person. Maintaining a "healthy" public domain by limiting rights of appropriation in intangible goods is commonly put forward as an important public policy goal.

In this article, the author questions the conceptual value and impact of the concept of the "public domain". The article starts from the basic proposition that the subject-matter of intellectual property law is knowledge in its various forms. It is suggested that the essence of intellectual property law is not to determine which knowledge is available for appropriation, but to identify which knowledge *cannot* be appropriated. From this perspective, the notion of the "public domain" in fact operates to *deny* claims to control certain forms of human knowledge.

Some such claims over "public domain knowledge" are arguably legitimate within a normative framework that differs from the dominant norm in a given society. Social groups that have different normative structures regarding control over knowledge can find that use of the concept "public domain", which forms part of the dominant norm, trumps their claims.

For instance, from the perspective of certain indigenous Australian peoples, the notion of "public domain" operates to deny the effect of their own legitimate norms concerning control of both artistic and technological knowledge. Public domain knowledge can thus be referred to as *scientia nullius*, in the same manner that land, until *Mabo*,¹ was considered to have been *terra nullius* in Australia prior to European occupation.

The article concludes that the traditional notion of the "public domain" is one of uncertain utility that is only positive viewed from a singular cultural and social perspective. At the very least, its legitimate purpose and

effect in intellectual property theory is relative and insufficiently understood.

The Traditional Notion of the Public Domain

The public domain is traditionally defined in the negative, as consisting of those "intangible goods" *not* subject to intellectual property rights.² From this perspective the public domain contains:

- intellectual property for which the term of protection has run out;
- intellectual property that has been forfeited or is unclaimed; and
- those intangible goods that fall outside the scope of protection of intellectual property laws.

The essence of this approach is that nobody can restrict the use of public domain knowledge by relying on the rules of intellectual property law.³

Positive and Negative Theories of the Public Domain

Recently the theory of the public domain has come to the fore in the debate over the expansion of the scope of intellectual property rights (or so-called "commodification of knowledge"). Expansion of intellectual property rights is said to threaten a healthy public domain. On this view, the public domain is a bastion against privatisation of knowledge. It serves the public interest by enabling free access to artistic expression, education and scientific research, thus enhancing creativity, self-expression and a productive cultural and artistic life.⁴

Some authors have recently recognised the inherent limitations of the negative theory of the public domain. They advocate the need to postulate a *positive theory*, *i.e.* a theory that actively defines the characteristics of what is or should be in the public domain.⁵ Such a theory

2 Corresponding notions are "intellectual commons", or "public sphere". The "public domain" notion is equally relevant to the arts and copyright-related industries, as to scientific pursuits and patent-related industries.

3 However, it may be possible to control intangibles by other means, for instance in the context of the development of the internet as a legal sphere in which intangible goods are controlled by way of contractual rather than statutory prohibitions. Apart from contract, other regulatory systems may affect access to the "public domain", *e.g.* trade practices law or corporations law. Non-legal factors also affect the openness of the public domain (*e.g.* market dominance).

4 In the contexts of scientific research, see R. P. Merges, "Property rights theory and the commons: the case of scientific research" (1996) 13 Soc.Phil. & Policy 145-167. In relation to the whole of intellectual property law, see K. Aoki, "Authors, inventors and trademark owners: Private intellectual property and the public domain" (1993-4) 18/1 *Columbia-VLA Journal of Law and the Arts* 1; and Part II in 18/3-4. In the context of musical copyright, see J. Heald, "Reviving the rhetoric of the public interest: choir directors, copy machines and new arrangements of public domain music" (1996) 46 *Duke L.J.* 241. Much of the debate concerns the effect of rent-seeking behaviour of firms on the balance between private interest and the public interest.

5 One might call it a taxonomy of public domain knowledge. See, *e.g.* J. Litman, "The Public Domain" (1990) 39 *Emory L.J.* 965; D. Lange, "Recognizing the Public Domain" (1981) 44 *Law & Contemporary Problems* 147.

The author wishes to thank his colleague Dr Janet McDonald for her invaluable remarks and suggestions concerning an earlier draft of this article.

1 *Mabo v. Queensland [No. 2]* (1992) 175 C.L.R. 1. This decision of the High Court abandoned the notion of *terra nullius* in relation to Australian land prior to European occupation and recognised common law "native title" rights to land.

would then permit of a more effective defence against commodification.

But is the notion in fact so inherently vague and uncertain that it has very limited use as an analytical tool, whatever the theoretical context?⁶

The Scope of IPRs and the Public Domain

Determining the ideal size of a “healthy” public domain, and by inference, the scope of intellectual property rights, is a conceptually, analytically and empirically challenging task.

Take for instance the contention that as the scope of intellectual property rights expands, the public domain automatically contracts. This is not really as clear-cut as it at first appears. If the incentive effect of intellectual property rights is given any credence at all,⁷ then arguably the greater the incentive—that is to say, the greater the potential returns from the production of new knowledge because of the greater scope for appropriation of those returns—the greater the volume of intangible goods created.⁸ And the more intangible goods are created, the greater, both immediately and eventually, the extent of the public domain!

Immediately, because the creation of most intellectual property has a spillover effect into the public domain. For example, the ideas in a copyright work are immediately available for development by others; the patent specification is an open source of information concerning technology. Eventually, because when the term of the IPRs runs out, intangible goods are available for all to use.⁹ At the very least, therefore, there is no simple linear relationship between the scope of IPRs and the size of the public domain.

What use the Public Domain?

The nature of the relationship between the scope of IPRs and the size of the public domain is unclear. Moreover, there is neither a comprehensive taxonomy nor clear understanding of the value of public domain knowledge. Theoretically the value of its contents lies in its free availability for research, education, imitation and creative adaptation. But it is apparent that the value of such knowledge must be, at the very least, very variable. Just a couple of points will illustrate this.

6 See, e.g., E. Samuels, “The public domain in copyright law” (1993) *J.Copr.Soc’y* 41 at 137.

7 *i.e.* the reward of exploitable property rights increases the production of intellectual goods from the suboptimal level that exists in the absence of such rights.

8 Although the race for windfall profits may in fact result in duplication of investment if the rewards are potentially too great, e.g. if the scope of the patent to be granted is very wide.

9 Granted that in specific cases it can be convincingly argued that the granting of property rights on the basis of rent-seeking activity of existing IPR owners is detrimental to the public interest. But this does not support a *general* argument that the creation of additional IPRs is automatically detrimental to the public domain as, for instance, is the case with extension of term of existing rights, which favours investment in existing I.P. to the detriment of investment in future I.P. It is an entirely different argument that too broad IPRs lend themselves to detrimental monopolistic conduct through cumulation, accumulation of market power and the like.

First, an unknown proportion of practical knowledge may, by the time it enters the public domain, be of little practical utility, because of the rapid pace of scientific discovery, innovation and technological change in an industrial society.¹⁰ Nonetheless, some knowledge that enters the public domain may be useful to competitors seeking access to markets even after a relatively long term of protection has expired. For instance, some patented pharmaceutical inventions still have profit potential as generic drugs at the expiry of the patent term.¹¹

Secondly, much public domain knowledge is of no immediate utility. Two reasons for this stand out: it is commonly interwoven with proprietary knowledge; and it requires people with relevant tacit knowledge and experience to turn it to account.

Accordingly, there seems to be little conceptual advantage in general and undifferentiated assertions concerning the threat to the public domain whenever some extensions of IPRs is proposed. There is no generally accepted established basis for presuming that reducing the size of the public domain (if that were the result of increased IPRs) *per se* is against the public interest in access to useful knowledge. This is not to say that assessing the effect of specific rules of intellectual property law on access to certain kinds of knowledge is not a significant task.¹²

The undifferentiated concept of the public domain is thus vague and difficult to apply in other than the most abstract terms. Should one therefore simply ignore it as irrelevant, as unable to sway opinion one way or the other in the debate concerning the optimal scope of intellectual property rights? Maybe so, if it were not for the fact that its impact is not necessarily neutral. This article will illustrate below how the public domain concept, as an integral part of dominant normative structures, may inadvertently justify the denial of the otherwise legitimate claims of indigenous peoples to control intangibles. But this analysis does not apply to claims by indigenous peoples alone. Other groups whose normative structures are subordinated by the dominant norm can be affected in a similar manner.

10 Take the example of copyright: works generally enter the public domain 50 years after the death of the author. In industrialised nations the average age at death of a woman is approximately 75. If a person’s most productive years are between the ages of 25 (when they finish their education) and 65 (when they retire) this means that a work may enter the public domain between 60 and 100 years after it was made. Will there be much interest in it, or use for it? What if the work is a computer program? In truth much knowledge may be of little application in a competitive market, even long before the expiry of the term of protection.

11 Hence the attempts of rent-seekers to extend the term; in the United States individual patent owners have been successful in obtaining extensions of term for specific compounds. The extension of pharmaceutical patent terms on the basis of loss of monopoly term because of marketing approval requirements can also be seen as the result of successful rent-seeking lobbying by pharmaceutical patentees. In many other areas, patented inventions are of historical interest only after 20 years, and there is little interest in them either from competitors or the patentee.

12 Furthermore, an argument that the public domain notion as such is of little utility does not amount to an assertion that creation is not vitally dependent on imitation and re-use of existing knowledge.

The subject-matter of Intellectual Property Law

But before we arrive at that conclusion, we must first go back to basics and re-conceptualise the subject-matter of intellectual property law in positive terms and without immediate reference to the divide between “proprietary rights” and “the public domain”. Then we must examine how some knowledge came to be the subject of proprietary rights, and other knowledge not. That examination will reveal how this divide came about through a culturally determined process, an insight that will take us back to considering the impact of the public domain on indigenous claims to control knowledge.

This exercise of determining what is the subject-matter of intellectual property law is not co-extensive with the question: “What are the rights comprehended in intellectual property law?” Nor can it be answered usefully by saying that “intellectual property law is concerned with property in intangibles”. The subject-matter must be defined without reference to highly abstract concepts such as “intangibles” or legal notions such as “property”. The use of these terms in this field of law is nothing if not confusing.¹³ What should be emphasised here is that intellectual property law is not only concerned with material subject to legal rights; certain things that fall outside the protection of the law are just as much its proper subject-matter as what falls within the boundaries of defined rights. That raises the question of how to draw the limits of the subject-matter.¹⁴

The subject-matter of real property and personal property law is physical things or the physical environment. In intellectual property law physical things only have importance as follows. First, in terms of the subsistence and delineation of IPRs: for instance, copyright works must be in some material form. And secondly, in terms of allocating ownership of those rights: for instance, the author of a copyright work is the person who first reduced it to material form. Furthermore, physical form may serve to represent or communicate the subject-matter of intellectual property law, but it cannot be said to be the subject-matter of intellectual property law. If this is so, then what is it?¹⁵

13 Nor does the author want to have recourse to notions such as “intangible” or “incorporeal” goods. That only replaces one abstract concept with another.

14 In answering this question we must now accept that non-patrimonial rights (so-called moral rights) are also a legitimate part of intellectual property law, even in English speaking countries, and that trade mark law, although in many respects different from other areas of intellectual property law, is nonetheless considered part of it.

15 Much scholarship about the subject-matter of intellectual property law is concerned with applying the legal concept of property to “intangibles”; the focus is then usually on the meaning of “property”, and how property in intangibles may be justified. This then often goes back to the two great schools of thought, the “Lockean” just deserts theory and a more continental European perception of inherent rights in the emanation of the personality of the creator; see, e.g., P. Drahos, *A philosophy of intellectual property* (1996). Much historical analysis also focuses on the property aspects; see, e.g., B. Sherman and L. Bently, *The making of intellectual property law* (1999). Future gazing in this area of law also focuses on the property issues; see, e.g. B. Shulman, *Owning the future* (1999). Much of the economic literature also focuses on property. In the process, the question “property in what?”, seems often lost from view.

The author posits simply that it is human knowledge.¹⁶

The simple notion that human knowledge is the subject-matter of intellectual property law may be illustrated by reference to the various regimes. Copyright law consists of rights in what are ultimately expressions of either practical or artistic human knowledge. For instance, a painting represents human knowledge concerning the visual world, artistic techniques, creative ideas, etc. An architectural drawing is an expression of technical knowledge combined with artistic experience and creativity, etc. Patent law consists of rights in practical human knowledge. Design law is concerned with human knowledge and experience about the appearance of industrial goods, etc. Intellectual property law is ultimately concerned with the results of a process of human thought, as opposed to simply a process of human action.¹⁷

Rights to Knowledge: the Dominant Norm

Having adopted “human knowledge” as the subject-matter of intellectual property law, our next step is to examine how *certain* knowledge came to be carved out of that amorphous and indeterminate field. Over a period of centuries, European jurisdictions (and their successors) formulated and applied legal rules to the subject-matter of “human knowledge”, delineating exclusive rights of varying scope and effect. These legal rules have now become the dominant global norm.

This process of excising the areas of human knowledge and experience that became subject to IPRs from the broader subject-matter was and continues to be bounded culturally and socio-economically. The process reflects the cultural and economic imperatives of specific “Western” polities with a relatively homogeneous political, cultural and socio-economic infrastructure.¹⁸

What were the most crucial socio-economic imperatives? First, the integration of certain aspects of human knowledge into markets¹⁹; secondly, a search for legal norms reflecting the perceived relationship

16 Thus the subject-matter of intellectual property law is more than only the knowledge and experience that can be protected by IPRs at any given time. Knowledge is initially in the mind, although it may then be shared, be codified, become part of a “body of knowledge”, or of “culture”, “art”, “tradition”, etc. There is a danger of excessive reductionism in proposing this definition. However, as will become apparent below, the essential reason for using this definition is to emphasise that the subject-matter of I.P. is broader than those things in which we recognise legal rights. How to define that subject-matter most accurately and comprehensively is open to much debate. In the author’s opinion this conceptualisation is well supported when it comes to the legal protection of goodwill as well, although there are arguments in favour of treating goodwill differently.

17 Although human action is relevant in terms of delineating the rights over human knowledge (e.g. by acts of expression, or making).

18 In modern intellectual property law the author includes what Sherman and Bently, n. 15 above, refer to as pre-modern intellectual property law.

19 The big shift that occurred was that the value, in terms of trade, of emanations of the mind became apparent; this required the structuring of rights in manifestations of knowledge, experience, etc., and the balancing of various public policy concerns in the process.

between the creator and the external object of her creation²⁰; and thirdly, the association between the *expression* and *application* of human knowledge, and human advancement and social progress. These factors influenced the formulation of legal rules in the context of specific political processes, as this article attempts to illustrate below.

In the light of these cultural and economic factors, the core characteristics of IPRs are unsurprising. The grant of IPRs depends on some external manifestation of human knowledge and experience (reification); they are precisely delineated, usually by reference to the material form in which they are expressed; only new or original expressions of knowledge are the subject of rights; the expression of knowledge usually originates with an identifiable person; and the rights are limited in extent and in time.²¹ These are the core concepts of subsistence of rights in intellectual property law.

In terms of the law, since the eighteenth century the predominant focus of intellectual property doctrine has been on the applicability of the legal concept of property to "intangibles".²² This was an issue at the time of the literary copyright debates in England. Unsurprisingly, it is still alive today.²³ "Property rights", at least to some degree, allowed knowledge to become a recognisable object of economic exchange, or alternatively granted an author a legal basis to exercise her moral control over expressions of knowledge. The boundaries of intellectual property rights were fixed in the context of a debate about property rights. But if one looks beyond its constituent legal concepts, it is evident that the characteristic features of intellectual property law are rooted in the cultural, economic and technological conditions of Western Europe since the late middle ages. A brief illustration of that point, focusing on patents and copyright law, follows.

Determining the boundaries of intellectual property rights: patents and copyright

External manifestation and precise delineation

With the invention of the printing press the processes of authorship and of distribution could easily be

separated.²⁴ Knowledge could be "codified"²⁵ and presented in a consistent, determinate and predictable format which was adapted to printing and distribution. Importantly, in the standardised format of the printed book, the link between author and work could be clearly and consistently maintained. In other words, the author remained identifiable despite the multiple reproductions and distribution of the work. The work did not become distorted in the process of reproduction and distribution in the way that spoken words change a story in the telling.

At the same time, it became possible to distribute this codified knowledge at a relatively modest cost to all those who could read.²⁶ At a time of political and religious change and nascent scientific inquiry²⁷ there was a demand for new knowledge. However, the relevant technology required investment in machinery and in learning. There was a risk inherent in publishing *new* works, and unsurprisingly printers sought and gained exclusive legal rights that reduced that risk and enhanced profitability.

The predictability and consistency of the format of printed works (books) made them a logical focus for the identification of rights.²⁸ Because of the slowness of the cycle of radical technological change, rights could be centred effectively around a broadly defined technology.²⁹ Furthermore, because the function of authorship and of distribution became separated, there needed to be a way to structure the relationship between author and publisher. In a society where legal rules and the notion of property formed the basis of individual exchange and agreement, mutual legal rights and obligations and property were the logical format.

In terms of patents, opposition to monopolies meant that the rights in "any new manner of manufacture" had to be limited in scope.³⁰ The focus of the early patent system was on enhancing the technological and skills base of the nation in a burgeoning rural and metropolitan manufacturing industry: hence the granting of monopolies in practical inventions, rather than in discoveries or in organisation innovations. The invention had to be delineated and practical. Furthermore, because of the preceding history of indiscriminate grant of trading monopolies, any monopoly of indeterminate scope or extent was viewed with such suspicion as to be

20 The latter view has been more prevalent in continental Europe and is best illustrated by reference to moral rights thinking in copyright law; the former view is more of the essence of I.P. law in English-speaking industrialised economies.

21 Although trade marks are indeterminate in their duration, they are not unlimited in time. Cessation of use of a registered trade mark will ultimately result in the demise of the registered right.

22 For an interesting historical overview, with reference to relevant primary and secondary materials, see Sherman and Bentley, n. 15 above; see also C. Seville, *Literary Copyright in early Victorian England* (1999). For a contemporary analysis of the relationship between the legal concept of property and intangibles, see Drahos, n. 15 above.

23 Adopting the language of property was useful shorthand, but there is no doubt that the analogy with property in land or chattels is a difficult one. Much of the modern debate about property is framed in terms of economic analysis.

24 This rift between the creation and distribution or presentation of knowledge and experience was of fundamental importance; previously creativity and performance were more intimately linked. There was a close relationship between the creator and her audience, which largely disappeared thereafter. One of the "promises" of the internet is the re-establishment of this closer bond.

25 The author uses the term "codified knowledge" as knowledge recorded in some form, as opposed to "tacit" knowledge, which is in the mind of a person.

26 And many literate people happened also to be those who could afford to master the skill of reading and writing.

27 As to the emergence and evolution of Enlightenment rationalism, see R. Porter, *The Enlightenment* (2nd ed., 2001).

28 Copyright has since then adapted to attach rights to new formats of expression (or technologies) that become current and sufficiently stable and established.

29 The same can be said for designs at a later stage.

30 Any new manner of manufactures was the terminology used in the Statute of Monopolies, and still used in the Patents Act 1990 (Cth) to circumscribe patentable subject-matter.

a political impossibility.³¹ Clear delineation required precise description, which also assisted the ultimate goal of the system of patent grant: wide diffusion of the most productive technologies and associated skills.

Originality or novelty, and an identifiable creator

In copyright law, the requirement of originality arose in the context of the transition from the grant of printing monopolies (of the Stationers' Guild) to the statutory grant of a "monopoly" over works of authorship, limited in time.³² Since printing (or publishing) monopolies were out of the question, the ingenious trick of the printing trade was to argue in favour of authors' rights. Originality was the legal link between author and work. Printers knew full well that they could easily and cheaply acquire the authors' rights, to give themselves the effective monopoly they desired. The price they paid was a limitation on the duration of exclusive rights. The limited duration of the rights naturally set in train a search for new works to replace the old, because without new works there was no monopoly. The search for new or original works became an economic imperative for publishers (or printers).

Thus the rift between authorship and distribution naturally shifted the focus to authorship and the inextricably linked requirement of novelty or originality. The rise of a more romantic notion of authorship, always tempered by respect for tradition and imitation, only added to this emphasis on originality and individuality in later times.³³

Patents were primarily granted with three goals in mind: the introduction of manufacturing technology, either newly invented or newly obtained from abroad³⁴; the training of workers within the jurisdiction in the use of the technology³⁵; and the eventual wide diffusion of productive technologies. These aims require close attention to the novelty of the invention. There is no point in granting a monopoly to a manufacture that is already established. In any case, such a monopoly would be equivalent to the practice of granting monopolies over existing trades and industries, which the Statute of Monopolies was intended to abolish. Establishing novelty required proof that others had not

made the invention before, in other words, that this particular claimant was the first to make the invention. The grant of patents thus naturally becomes centred around the person of the inventor, who must be identified to enable the process of comparison between the old and the (allegedly) new.

Temporal limitation

Patent monopolies could only be for a limited term since there was a clear purpose to them which made them politically acceptable: to improve the technological basis of industry. The price that had to be paid for the introduction and diffusion of a technology within the jurisdiction, and for the education of the workforce, was a *temporary* monopoly. Exclusive rights of indeterminate duration were politically unacceptable and ultimately would not serve the goal of extending the manufacturing base of the economy (*i.e.* diffusion of technology).

With the passing of the Statute of Anne in 1709, publishers rescued a copyright of limited duration from the abolition of the indeterminate printers' monopoly. The monopoly of the Stationers' Guild had become inextricably linked with crown censorship and restrictions on the freedom of expression and of religion. Retention of an unlimited copyright carried with it the risk of reimposition of such restrictions, since there would be a determinate and readily controllable rather than—at the expiry of the copyright term—an indeterminate number of potential publishers. Freedom of expression, of scientific inquiry and of religion as emerging tenets of a liberal and democratic polity were and remain fundamentally incompatible with monopolies over forms of expression that are unlimited in term.

The Public Domain as Public Dispossession: Scientia Nullius

Modern intellectual property law thus sanctions control over knowledge if certain socially, economically and culturally determined conditions, translated into legal norms, are met. Thus a claim to legal control over knowledge will normally fail where there is no external manifestation or precise delineation, no identifiable author or inventor,³⁶ no novelty or originality, and the claim recognises no temporal limitation.³⁷ In other words, that knowledge to which such a claim extends will be said to be in the public domain, available for all to use, or for transformative appropriation.

From this perspective, the notion of the public domain supports the rejection of claims to control human knowledge. Some such claims are clearly without any justification; however, in other cases such

31 It may be so that the term monopoly is not really applicable to new inventions, since there can hardly be an objection to granting a monopoly in something that by definition does not exist at the time the promise of a monopoly rent is held out. In the same way, we do not speak in terms of a monopoly if a man cuts down a tree and chops it into blocks for firewood: he may have property in the blocks, but we do not say he has a monopoly in them.

32 By authorship is meant the need for an identifiable author.

33 See Sherman and Bently, n. 15 above; see also D. Saunders, *Authorship and Copyright* (1992); and Woodmansee and Jaszi, eds., *The Construction of Authorship, Textual appropriation in law and literature* (1994). See also Seville, n. 22 above, concerning the framing of the 1842 Copyright Act (U.K.).

34 The distinct search for inventiveness, *i.e.* for a small leap of individual "genius", as a separate requirement is relatively new, since inventiveness only became a separate requirement for validity in the 20th century.

35 Extending the technical skills of the population supported the continuity of manufacture once the patent term ended.

36 *i.e.* the author or inventor is either unidentifiable, does not want or is not allowed to be identified.

37 And in those broad outlines the law is pretty homogenous around the world, as a result of the wide membership of the principal international instruments in this area of law.

claims draw their legitimacy from long-established distinct cultural and social normative imperatives. By analogy with land law prior to *Mabo*: land declared *terra nullius* could be used freely, or appropriated if legal conditions were met. For those who in fact had a claim to land based on different cultural, social and political norms, this amounted to a denial of rights, or an expropriation of land.

Similarly, knowledge declared in the public domain is open to use without restraint or to appropriation in accordance with certain conditions. For those who in fact have a claim to that knowledge construed on the basis of different normative structures, this amounts to an expropriation of knowledge. To coin a phrase, the public domain is the *scientia nullius*³⁸ of intellectual property law; just as the now discredited theory of *terra nullius* was really a theory justifying unwarranted dispossession of land, the theory of *scientia nullius* can be conceived as a justification for the dispossession of knowledge.

Indigenous claims to knowledge

The claims of indigenous peoples to control knowledge serve as an example. Such claims are justifiable and legitimate, but only on the basis of social, cultural and political precepts that are not or are only barely recognised by the dominant norm. They are readily trumped by the apparent justification that what is claimed lies in the "public domain".³⁹ This would not be so significant were it not for the fact that the social and cultural norms that underlie the control of knowledge in indigenous communities are often diametrically opposed to the dominant norm, as reflected in the rules of intellectual property law (as outlined above).

In terms of copyright law, for instance, artistic expression of traditional indigenous Australians is often bound to social norms of possession that do not stress the individuality or control of a single author. Sociality or communality of control over the knowledge and its

expression dominates.⁴⁰ Control over knowledge and expression is not dependent on material form or precise delineation, but on rules that influence the conduct of the artist as a member of a social group. Furthermore, there is often a close and continuous relationship between the act of creation and that of distribution, *i.e.* between author and audience. In other words, performance is as much an act of creativity as is authorship itself.

Both in terms of practical technology and artistic expression, novelty or originality are not characteristics that determine the value of knowledge in traditional indigenous culture. Quite the contrary: valuable knowledge over which control is exercised is often of earlier origin, orally transmitted, and only gradually evolving. There is no need for a notion of sudden invention or individual creation: value is proven by long experience. Because there is no novelty requirement and control over knowledge is exercised in the context of social rather than commercial exchange, rights are not of limited duration. Religious connection to the possession and control of knowledge is strong, barring the simple commodification of such knowledge.

All these characteristics mean that indigenous knowledge often finds itself in the public domain. The public domain notion then functions as a way of justifying the denial of rights and rules relating to knowledge that have legitimacy within the confines of indigenous communities.

From this perspective the broad assertion that the maintenance of a "healthy" public domain is in the public interest, can be seen as an argument that favours continued dispossession. The view that a bigger and thus "healthier" public domain is *ipso facto* a "good thing" across the board does not hold true.

38 Lewis & Short's *Oxford Latin Dictionary* (1969) defines "scientia" as: a knowing or being skilled in any thing, knowledge, science, skill, expertness.

39 The more usual terms of the debate about indigenous rights revolve around two diverging viewpoints: first, that indigenous people should agitate for the inclusion of their claims over knowledge within the framework of intellectual property law; secondly, that since their claims are based in quite different cultural notions, a *sui generis* system of protection for indigenous knowledge is more appropriate. The question then is how a *sui generis* system can be compatible with the existing system of IPRs, and with the dominant culture and social norms in post-colonial societies. As to the position of indigenous peoples in relation to intellectual property law, see M. Blakeney, "Protection of traditional medical knowledge of indigenous peoples" [1997] E.I.P.R. 298; Drahos, "Indigenous knowledge and the Duties of Intellectual Property Owners" (1997) 11 I.P.J. 179; M. Halewood, "Indigenous and Local Knowledge" [1999] McGill L.J. 956; L. A. Whitt, "Indigenous peoples, intellectual property and the new imperial science" (1998) 23 *Oklahoma City University Law Review* 211; C. Haight Farley, "Protecting folklore of indigenous peoples: is intellectual property the answer?" (1997) 30 *Connecticut Law Review* 1; D. A. Posey, *Traditional Resource Rights* (1996). See also J. Sutherland, "Representations of indigenous peoples' knowledge and practice in modern international law and politics" (1995) *Austr.J. of Human Rights* 39.

40 The conflict between the norms that prevail in Australian indigenous society and those represented by intellectual property law has become apparent in a number of recent Australian court decisions, where ingenious legal argument has been deployed to overcome the limitations of IPRs from an aboriginal perspective: see, *e.g.*, *John Bulu Bulun v. R. & T. Textiles Pty Ltd* (1998) 1082 F.C.A. (September 3, 1998); *Milpururru v. Indofurn Pty Ltd* (1994) 54 F.C.R. 240; (1994) 130 A.L.R. 659. The recognition of native title rights to indigenous knowledge would at once remove such knowledge from the public domain, but von Doussa J. in *John Bulu Bulun v. R. & T. Textiles Pty Ltd, ibid.*, said the following about the matter: "These proceedings represent another step by Aboriginal people to have communal title in their traditional ritual knowledge, and in particular in their artwork, recognised and protected by the Australian legal system. The inadequacies of statutory remedies under the Copyright Act 1968 as a means of protecting communal ownership have been noted in earlier decisions of this Court: see *Yumbulul v. Reserve Bank of Australia* (1991) 21 IPR 481 at 490 and *Milpururru v. Indofurn Pty Ltd* (1994) 54 FCR 240 at 247. See also McKeough and Stewart 'Intellectual Property and the Dreaming', published in *Indigenous Australia and the Law*, Johnston, Hinton & Rigney eds. (1997); Henderson 'What's in a Painting? The Cultural Harm of Unauthorised Reproduction' (1995) 17 *Syd Law Rev* 591 at 592; Ellison, 'Unauthorised Reproduction of Traditional Aboriginal Art' (1994) 17 *UNSWALJ* 327; and 'Stopping the Rip-Offs: Intellectual Property Protection for Aboriginal and Torres Strait Islander Peoples' (1994, National Capital Printing) where it was said at p. 6: 'While joint authorship of a work by two or more authors is recognised by the Copyright Act, collective ownership by reference to any other criterion, for example, membership of the author of a community whose customary laws invest the community with ownership of any creation of its members is not recognised.'

What arguably does threaten the interests of indigenous peoples is not "excessive" appropriation by means of the rules of intellectual property law, at least where the traditional precepts are respected and appropriation is correctly confined to new, inventive or creative knowledge.⁴¹ Rather, it is the rule that all knowledge that is not appropriable by IPRs is in the public domain, available for unrestricted use by all, and justifiably so.

Conclusion

The public domain notion is commonly conceived of as a bulwark against excessive private appropriation of human knowledge. Maintenance of a "healthy" public domain is then advanced as an important public policy goal. The object of this article has been to re-examine this thinking, and demonstrate that the notion of "public domain" in intellectual property law can operate to defeat arguably legitimate claims to control knowledge. This has been illustrated by reference to claims over indigenous knowledge. However, the analytical path advanced can be applied to any claims to knowledge

whose legitimacy does not derive from the dominant norm.

The article started by calling the conceptual coherence and utility of the notion of the public domain into question. It then defined the subject-matter of intellectual property as human knowledge. Often such knowledge does not meet the conditions required for appropriation by operation of the rules of intellectual property law. But those conditions are based on temporally and geographically bound cultural, social and economic precepts, as is the concept of public domain.

Such precepts are foreign to social groups with different norms determining use and control of knowledge, such as some Australian indigenous communities. To them the notion of the public domain can thus operate to legitimise the denial of claims to control over knowledge, and thus as an instrument of dispossession. Hence the coining of the phrase *scientia nullius*, analogous to the discredited notion of *terra nullius* in land law.

At the very least, the public domain notion must be treated with circumspection. Arguably, the notion should be rejected in favour of an approach to intellectual property law based on a carefully elaborated taxonomy of knowledge, rather than on crude and *ex-post facto* divisions such as that between proprietary and public domain knowledge. This might enable us to define more effectively which forms of knowledge should be subject to proprietary control, and how such control should be reflected in a diversified rule structure. Maybe this could be done with appropriate regard to non-dominant norm structures, indigenous or other.

41 Recently, in *The Grain Pool of WA v. The Commonwealth* [2000] H.C.A. 14 (March 23, 2000) the High Court recognised that novelty, together with intellectual effort, is an essential characteristic of patents law for the purpose of determining the scope of the intellectual property power in the Constitution (see paras 130–136). In the United States the constitutional power to "Promote the Progress of Science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries" (U.S. Const. Art I, para. 8, cl. 8) is seen, by its use of the terms "Promote the progress . . ." as limiting the powers of Congress to the granting of rights in new, inventive or original subject-matter.