CHALLENGES FOR INTERPRETATION IN LIGHT OF EVOVLVING TECHNOLGIES

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I Introduction

In a time of rapid and constant technological change, it is increasingly common to encounter statutes, which are founded on factual assumptions that have been since superseded by technological progress in areas including electronic communications and intellectual property. That is, there is increasingly a time lag between technological development and legislative response. During this time, it falls to the courts to grapple with how best to maintain the effectiveness of the instrument without compromising its inherent integrity.

The purpose of the present article is to examine, at an initial level of inquiry, a collection of Australian cases dealing with this multi-faceted and complex issue, in the context of both constitutional and statutory interpretation,[1] in order to appreciate some of the challenges that have emerged. In these instances of technological change, it is submitted that generally the most effective method of construction seems to be to adopt a purposive method of interpretation, which seeks to establish the essential meaning of the instrument without necessarily seeking to clearly define a normative conceptual framework.

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[1] Appreciating here that the issues in interpreting constitutions are often very different from the issues in interpreting statutes. Statutes can be changed quickly; statutes are often not designed to stand forever. In comparison, the process of constitutional amendment is considerably more difficult. The purpose here is to identify instances, at an initial level of inquiry, where there is a noticeable gap between instrument and the development in the technology.

II The Tension between Static Law and Evolving Technology

The vexed issue of the proper construction of legislation in the light of evolving technology has not been confined to modern times but has arisen from the inception of laws dealing with specific technologies.

An examination of some of the relevant cases will illuminate the nature of the challenge faced by the courts and the variety of considerations and approaches that have been adopted to maintain the effectiveness of the legislation where the factual assumptions underlying the legislation have been superseded by technological change.

A *New Developments Relating to Same Subject Matter*

Within the first ten years of Federation, the High Court was considering its first significant technology based case, The 1908 *Union Label* case.[2] The High Court's approach to the issue of whether a statute applied to a new technological development was to determine whether the new development related to the subject matter of the statute.

Specifically, the High Court had to consider whether the *Trade Marks Act 1905* (Cth) extended to workers' trademarks.[3] Griffith CJ, Barton and O'Connor JJ, in the majority, held that the trademarks power in s 51(xviii) of the constitution did not extend to a 'worker's trade mark' indicating that the product thus marked had been made with union labour. The majority emphasised that an essential requirement of a trademark is a business or trade connection between its owner and the goods to which the mark is affixed. In coming to his decision Griffiths CJ was influenced by the reserved powers doctrine.[4]

The Chief Justice comments that '[t]he meaning of the terms used in [the Constitution] must be ascertained by their signification in 1900'.[5] Yet, despite finding against extending the limits of the *Trade Marks Act 1905*, Griffith CJ added 'with advancing civilisation new developments,

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2 *A-G (NSW) v Brewery Employees Union of NSW* (1908) 6 CLR 469*('Union Label Case')*.

3 Under *Australian constitution* s 51(xviii).

4 Later to be overturned by the Engineers' Case: *Amalgamated Society of Engineers v Adelaide Steamship Co Ltd* (1920) 28 CLR 129 ('Engineers' case').

5 (1908) 6 CLR 469, 501 (Griffith CJ).

now unthought of, may arise with respect to many subject matters'; and that '[s]o long as those new developments relate to the same subject matter the powers of the Parliament will continue to extend to them'. [6]

In a powerful dissenting judgment, Higgins J argued that workers' trademarks did come within the connotation of trademarks, since they had all the relevant characteristics of a trademark as at 1900.[7] Higgins J held:

> The plaintiffs in their argument treat the power of the Federal Parliament to make laws with respect to trade marks as if it were a power to make laws with respect to cattle. In such case, if a beast does not come under the term 'cattle', as understood in 1900, there is no power, it is said, to make any laws about it. But I am clearly of opinion that this narrow doctrine… [is] unwarrantable and absolutely wrong. In the first place, there is a vital distinction arising from the nature of the subject. Cattle are concrete, physical objects, and the boundaries of the class are fixed by external nature; whereas 'trademarks' are artificial products of society, and dependent upon the will of society. The class 'cattle' cannot well be extended by man; the class 'trade marks' can be extended.[8]

B *Establishing an Inherent Scope for Expansion*

The 1935 case of *Brislan*[9] is an early and widely cited example of 'adapting the words of the constitution to later developments in a way that (it is said) could not have been foreseen.'[10] *Brislan* was one of the first constitutional cases to consider the limits of s 51(v). The Court broadly agreed to the notion that radio broadcasting could be classified as a 'telegraphic' or 'telephonic' service. That is, s 51(v) was treated as extending to radio because it fell within the term 'other like services'. Following the *Brislan* decision thirty years later in 1965, the High Court would further extend the phrase 'other like services' into the realm of television.[11]

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6 Ibid.

7 Isaacs J also dissented.

8 (1908) 6 CLR 469, 611 (Higgins J).

9 *R v Brislan; Ex parte Williams* (1935) 54 CLR 262 ('Brislan').

10 *See* T Blackshield and G Williams, *Australian Constitutional Law and Theory* (2002) 357.

11 See *Jones v Commonwealth (No 2)* (1965) 112 CLR 206; See also *Herald*

Commenting on the radio and television decisions in the 2000 landmark intellectual property decision of *Grain Pool*,[12] the joint judgment acknowledges 'the inherent scope for expansion'[13] of s 51(v) further stating:

> Later developments in scientific methods for the provision of telegraphic and telephonic services were contemplated by s 51(v). Likewise, it would be expected that what might answer the description of an invention for the purpose of s 51(xviii) would change to reflect developments in technology.[14]

In the 1970 decision of *Lake Macquarie Shire Council v Aberdare County Council*[15] one of submissions the High Court considered was whether a reference to the powers of a council to supply 'gas' included a reference only to coal gas: the only relevant known gas at the time of the statute; or whether it also applied to liquefied petroleum gas (a later development). The case highlights how 'legislation may speak with a meaning that is attached to words and which may differ from the meaning originally ascribed to them when these words were enacted.'[16] In that case, Barwick CJ held in terms of the word 'gas', whilst the connotation of the word was fixed, its denotation could change with changing technologies.[17]

The way in which 'different minds' respond to a problem of evolving technology is clearly evident in the contrasting judgments of Barwick CJ and Windeyer J. Despite Windeyer J agreeing with the Chief Justice on the eventual outcome of the case (the appeal was dismissed) his Honour's interpretation of the term 'gas' differed:

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and Weekly Times Ltd v Commonwealth (1966) 115 CLR 418.

12 *Grain Pool of Western Australia v Commonwealth of Australia* (2000) 202 CLR 479 ('Grain Pool').

13 Ibid 493.

14 Ibid.

15 *Lake Macquarie Shire Council v Aberdare County Council* (1970) 123 CLR 327.

16 See *Wilson v Commissioner of Stamp Duties* (1988) 13 NSWLR 77, 79 (Kirby P as known then).

17 The connotation/denotation interpretive model will be explored in closer detail below. It is noted, however, that a detailed examination of judicial interpretation is beyond the scope of this paper.

> I have had some misgivings and doubts on one aspect of the matter. That is the extent of the denotation of the word 'gas' where it is used in s 418(1)(b) of the Local Government Act along therewith the words 'gas fittings and appliances'. I think that the phrase 'the supply of gas' in its context in the Act of 1919 probably means the thing that it had meant in the forerunners of that Act, earlier statutes of New South Wales dealing with the powers of local governing authorities. That thing was coal gas. The word is not limited to gas for heating and lighting appliances. Therefore it must be read, it seems to me, as meaning either all types of chemical gases or as limited, as it was previously limited, to coal gas.[18]

C *The Extent of the Importance of the Original Understanding*

The extent of the relevance of the original understanding of the terms is a reoccurring and vexed issue in the judicial discourse. In the 1996 Federal Court decision of *Sega Enterprises v Galaxy Electronics*,[19] Burchett J had to decide whether video games (the new technology) were cinematographic films within the meaning of the *Copyright Act 1968* (Cth). In response to a claim of copyright infringement in certain computer games, the respondents argued that 'it could not be said that the computer game "embodied" any visual images to be aggregated into a film in the sense required by the definition of a cinematographic film in the *Copyright Act*.'[20]

In that case, the applicant succeeded in their claim. His Honour held that to narrow the term 'embodied' so as to confine a visual image to something 'in the nature of the frame' would introduce a 'limiting concept not inherent in the language.'[21] Further, his Honour stated:

> In the interpretation of the Copyright Act the *liberal approach* should be taken in order to give effect to the intention of Parliament. In the case of copyright in a film, the legislative history shows plainly that Parliament did intend to take a

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18 *Lake Macquarie Shire Council v Aberdare County Council* (1970) 123 CLR 327.

19 *Sega Enterprises Ltd and Avel Pty Ltd v Galaxy Electronics Pty Ltd* (1996) 139 ALR 518; affirmed at FCA: *Galaxy Electronics Pty Ltd and Gottlieb Enterprises Pty Ltd v Sega Enterprises Ltd (*1997) 145 ALR 21.

20 (1996) 139 ALR 518, 518.

21 Ibid.

> broad view, and not to tie the copyright to any particular technology.[22] (emphasis added.)

The most important constitutional intellectual property decision pertaining to new technology since the *Union Label* case of 1908 was the 2000 *Grain Pool* decision alluded to earlier.[23] The plaintiffs in this case argued that the *Plant Breeder's Act*[24] was not law regarding 'patents of inventions or designs' within the meaning of s 51(xviii) of the constitution. The contention of the plaintiffs was that the rights conferred in the legislation were not in the nature of patent rights as they were not exclusive rights and there was no novelty requirement.[25] In response, the Commonwealth argued that rights conferred by the *Act* fall within the 'core meaning' of a patent by conferring exclusivity, or more specifically, monopoly rights in respect of a novel product.[26] In a unanimous decision,[27] the High Court upheld the validity of the *Plant Breeder's Act* under the constitution. The joint judgment of Gleeson CJ , Gaudron, McHugh, Gummow, Hayne and Callinan JJ by in large adopted the dissenting judgment of Higgins J in the *Union Label* decision handed down more than 90 years earlier. The majority rejected

> any notion that the boundaries of the power conferred by s 51 (xvii) to be ascertained solely by identifying what in 1900 would have been treated as a copyright, patent, design or trademark… [making] insufficient allowance for the dynamism which, even in 1900, was inherent in any understanding of the terms used in s 51 (xvii).[28]

Blackshield and Williams observe the joint judgment went on to emphasise in light of 'cross currents and uncertainties in the common

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22 Ibid 518.

23 *Grain Pool of Western Australia v Commonwealth of Australia* (2000) 202 CLR 479: indeed , it was the first s 51(xviii) judgment since 1908.

24 *Plant Breeder's Rights Act 1994* (Cth).

25 See G Chin, 'Technological Change and Australian Constitution' (2000) 24(3) *MULR* 609, 625.

26 Commonwealth's outline of submissions, *Grain Pool of WA v Commonwealth of Australia* (HCA, 10 Aug 1999 [2]); *see* Chin, above n 25, 625.

27 Kirby J delivered a separate judgment.

28 *Grain Pool* (2000) 202 CLR 479, 495-6; see also Blackshield and Williams, above n 10, 356.

law and statute at the time of Federation' it was plainly within power for Parliament to resolve them, and indeed 'to determine that there be fresh rights in the nature of copyright, patents of inventions and designs and trade marks'.[29]

Kirby J, in a separate judgment, supported the view of the joint judgment. However, his Honour had a broader view of s 51(xviii).[30] Kirby J held that the scope of the power should not be characterised by reference to its meaning in 1900. Kirby J stated:

> [T]he collection of rights mentioned in the grant [in s 51(xviii)] strengthens the pre-supposition that the Federal Parliament in Australia is to enjoy a most ample lawmaking power in respect of 'products of intellectual effort' as that notion may itself expand, in part as a by-product to the very inventiveness which it empowers the Parliament to protect.[31]

Therefore, the above cases demonstrate a variance of opinion as to the extent of the relevance of the original understanding of terms in interpreting statutes in the context of evolving technology.

D *The Importance of Maintaining Fundamental Rights*

The 2005 High Court Decision of *Stevens v Sony*[32] is one of the more recent examples of the courts having to consider the interaction between technology, copyright and statutory interpretation.[33] In that case the High Court unanimously found that PlayStation technology, which precluded the use of unauthorised PlayStation game discs, was not protectable under the anti-circumvention copyright law regime. Indeed, in what is without question a narrow decision of the Court, all six judges held the protection advice was not a Technological Protection Measure (TPM)

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29 Blackshield and Williams, above n 10, 356, 356-357 (citing *Grain Pool* at 501).

30 *Grain Pool* (2000) 202 CLR 479, 514 (judgment of Kirby J).

31 *Grain Pool* (2000) 202 CLR 479, 527.

32 *Stevens v Kabushiki Kaisha Sony Computer Entertainment* (2005) 221 ALR 448.

33 *For an* excellent analysis of the Sony decision see: D Brennan, 'What Can it Mean "to Prevent or Inhibit the Infringement of Copyright"'? — A critique on *Steven v Sony*' (2006) 17 AIPJ 81; See also M Rimmer, *Digital Copyright and the Consumer Revolution* (2007) 170.

because it did not prevent copyright infringement.[34] The High Court also rejected that there had been any infringement through a temporary reproduction, and there was doubt that the work of Sony was protectable as a cinematographic film.[35]

The joint judgment stated:

> Copyright legislation, both in Australia and elsewhere, gives rise to difficult questions of construction. Given the complexity of the characteristics of this form of intangible property, that, perhaps, is inevitable. It may be going too far to say of the definition of 'technological protection measure' and of s116A, as Benjamin Kaplan wrote of the American law even as it stood in 1967, that the provisions have a 'maddeningly casual prolixity and impression'. However, in this Court no party advanced the proposition that its task on this appeal was satisfied merely by a consideration of the ordinary meaning of the words in the definition of 'technological protection measure'.[36]

Kirby J's separate judgment is of interest in the context of the broader discussion. His Honour states:

> Ordinary principles of statutory construction, observed by this Court since its earliest days, have construed legislation, where there is doubt, to protect the fundamental rights of the individual [37]… The right of the individual to enjoy lawfully acquired private property … would ordinarily be a right inherent in Australian law upon the acquisition of such a chattel.[38]

Stressing the importance of understanding copyright law against the broader backdrop of Australian constitutional law'[39] Kirby J comments:

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34 Joint judgment (Gleeson CJ, Gummow, Hayne and Heydon JJ), McHugh J and Kirby J gave separate judgments.

35 See Rimmer, above n 33, 163.

36 (2005) 221 ALR 448, 461.

37 (2005) 221 ALR 448, 497.

38 (2005) 221 ALR 448, 497- 498.

39 See Rimmer, above n 33, 167.

> The provisions of the Australian Constitution affording the power to make laws with respect to copyright operate in a constitutional and legal setting that normally upholds the rights of the individual to deal with his or her property as that individual thinks fit[40]… [However, warning of potential Constitutional problems His Honour further states]… To the extent that attempts are made to push the provisions of Australian copyright law beyond the legitimate purposes traditional to copyright protection at law, the Parliament loses its nexus to the constitutional source of power.[41]

A reason for such a narrow construction of the legislation forwarded by the joint judgment included that 'it is important to avoid an overboard construction which would extend the copyright monopoly rather than match it'.[42]

However, the question must be asked whether such a narrow reading is consistent with the purpose of the legislation?[43] The above case discussion has highlighted some of the challenges courts face when having to interpret static statutes in an environment of rapid technological evolution. This paper now turns its attention to a closer examination of the relationship between judicial interpretation and technological change.

E *The Time Lag between Technological Change and Legislative Response*

The question of statutory construction in the light of changing technology also came before the Court of Appeal in the Supreme Court of New South Wales in the case of *Wilson v Commissioner of Stamp Duties*.[44] The NSW Court of Appeal had to consider whether under s 74D of the *Stamp Duties Act 1920* (NSW) there was a requirement for stamp duty to be paid on a 'hiring arrangement'. There is an exemption from stamp duty under the *Act* where, inter alia, there is an 'arrangement relating to the use of a… motion picture film'. In that case it was held that since a videotape is not a motion picture film within the meaning of s 74D,

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40 (2005) 221 ALR 448, 498.

41 Ibid.

42 See (2005) 221 ALR 448, 459.

43 See generally the convincing argument made by D Brennan, above n 33.

44 (1988) 13 NSWLR 77.

an arrangement relating to use of a video tape is not excluded from consideration as a 'hiring arrangement'.[45]

Of particular interest are the comments of President Kirby (as he then was):

> These are times of particularly rapid technological change. The legislature, with many pressures upon it, may have insufficient time quickly to elaborate statutory provisions specifically to refer to new technological developments. Accordingly, it may be an appropriate modern canon of statutory construction to adapt language of generality, although originally designed to apply to an earlier technology, to apply to supervening technology as well.[46]

Kirby P concluded that no comprehensive genus existed and if 'Parliament wishes to amend it [the Act] to include 'video tapes', it can readily do so as it has elsewhere.'[47]

During the same period as the *Stamp Duties* decision, Australian Courts were beginning to grapple also with the rapid technology changes pertaining to information technology. The issue of statutory interpretation in the context of technological evolution was addressed by the High Court in *Computer Edge Proprietary Limited v Apple Computer Inc.*[48]

The issue to be determined was whether an object program fitted into a computer and consisting of a sequence of electronic impulses stored in a silicon chip housing thousands of connected electrical circuit was a 'literary work' for the purposes of the *Copyright Act 1968* (Cth). The object programs were based on a separate source program. The latter consisted of a series of instructions for the computer expressed in binary digits and the object code was generated by the source code.

The proceedings had an eventful history and illustrate that, on occasion, Federal Parliament was receptive to rapid changes in computer technology. At first instance the Federal Court held that the programs

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45 *See Stamp Duties Act 1920* (NSW) 78G,86D-G, 87A.

46 (1988) 13 NSWLR 77, 78.

47 Ibid 81.

48 (1986) 161 CLR 171.

were not literary works.[49] However, soon after the first decision was handed down, Parliament quickly moved to amend the *Copyright Act* to give computer programs the status of a literary work.[50] The Full Federal Court reversed the trial decision,[51] and on further appeal, the High Court was given the opportunity to clarify the uncertainty the new technology created, but was bound to interpret the legislation applicable to the facts before it — the old legislation.

A majority of the court, including Gibbs CJ, held that whilst the source code was a 'literary work' within s 36(1), the object code was not a literary work. In the context of the present discussion, the comments of Chief Justice Gibbs are of particular interest:

> [A]lthough it would be no doubt right to give the *Copyright Act* a liberal interpretation, it would not be justified to depart altogether from its language and principles in an attempt to protect the products of scientific and technological developments which were not contemplated or incompletely understood, when the statute was enacted. To keep copyright law abreast of technological developments is no new problem.[52]

In light of the legislative developments, the decision of the High Court led to wide criticism within the computer industry. This consternation could have partially been the result of industry confusion over the Court's apparent dismissal of the legislative developments. However, subsequent decisions of the High Court in the following decade would fall in line with new legislative developments. The High Court held that object codes were literary works in the later case of *Autodesk Inc v Dyason [No 2]*.[53] The Court held that electrical impulses stored in a non-sensate form were still capable of constituting a 'literary work'

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49 See Apple *Computer Inc v Computer Edge Pty Ltd* (1983) ATPR 40-421. The Court held that the source code and object code were primarily functional — they 'drove the machine'.

50 *Copyright Amendment Act 1984* (Cth.).

51 *Apple Computer Inc v Computer Edge Pty Ltd* (1984) 1 FCR 549; (1984) 53 ALR 225; (1984) 2 IPR 1. The Full Court would not have been able to rely on the amendments. It was held on appeal that the source code was a literary work and the object code was an adaptation within s 31 of the *Copyright Act*.

52 (1986) 161 CLR 171, 187-188.

53 (1993) 176 CLR 300.

within s 36 (1) of the *Copyright Act*. However, the Court did not revisit the issue of statutory construction in light of evolving technology.[54]

This brief early history of the recognition of copyright subsisting in computer programmes suggests a degree of judicial caution. In the *Computer Edge*[55] decision, the High Court, which was bound to the pre-amended legislation, was ultimately more willing to follow the narrower interpretation of the trial judge than the expanded view of the Full Court. When first encountering a new technological innovation the Court refused to broadly interpret legislation to accommodate the new computer technology. It was not until amendments to the law were made, as evident in the *Autodesk* decision that the courts began to embrace the developments in computer technology.

III The Need for a Synthesised and Consistent Basis for Statutory Construction

A *A Combined Legislative and Judicial Response*

Once the tension between static laws and fluid technology is understood, the question then becomes how best to develop a legal framework that can accommodate rapid technological change.

It has been argued that the ideal adaptation to technological change entails a combination of both judicial and legislative responses.[56] Bennett Moses emphasises the need to proceed with caution when developing appropriate legal response to technological change. Although Bennett Moses does not intend to dictate a single appropriate response, she

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54 Over the past 15 years, a variety of other 'evolving technology' cases not discussed above have come before Australia Court: *Data Access Corporation v Powerflex Services Pty Ltd* (1999) 202 CLR 1; *Telstra Corp Ltd v Australasian Performing Right Association Ltd* (1997) 191 CLR 140; *Network Ten Pty Ltd v TCN Channel Nine Pty Ltd* (2004) 218 CLR 273; *Nintendo Co Ltd v Centronics Systems Pty Ltd* (1994) 181 CLR 134; *Australian Tape Manufacturers Association Ltd v Commonwealth of Australia* (1993) 176 CLR 480.

55 (1986) 161 CLR 171.

56 See L Bennett Moses, 'Adapting the Law to Technological Change: A Comparison of Common Law and Legislation' (2003) 26(2) *UNSWLJ* 394; 'Recurring Dilemmas: The Law's Race to Keep Up With Technological Change' [2007] UNSWLRS 21 <www.austlii.edu.au/au/journals/UNSWLRS/2007/ 21.html.>.

suggests it is often the case that legislators adopt a more pro-active role in implementing reform; but there are 'circumstances in which common law reform offers advantages over statutory law reform and, in such cases, legislators ought to consider a more passive role.'[57]

The common law has the significant advantage of flexibility in adapting to technological change as it can be altered or overturned, and judicial decisions can affect the meaning and way that a statute is interpreted. These characteristics suggest the common law is well equipped to accommodate rapid changes in technology. However, as Moses notes, courts play a delicate balancing game and often risk eliminating their own advantage:

> Where courts are overly deferential to legislatures and refuse to adapt the law as circumstances change, the system's ability to respond to technological change is reduced. The common law works best as a system of semi-transparent rules that are moulded by judges to best reflect their underlying justifications. If common law rules become opaque and are applied solely by reference to their canonical form, common law development would become dependent on legislation.[58]

The Courts therefore have the challenge of developing laws that are both flexible and also attempt to provide relatively clear and certain guidelines.

The distinction between the fixed notion of 'connotation' and the varying 'denotation' has repeatedly been used by the Australian courts as an interpretative tool to achieve a degree of flexibility.[59] In terms of constitutional interpretation, the 'connotation' refers to the essential meaning of the constitutional language as at 1900, comprising of all the essential attributes that a thing must have in order to come within the term. The 'denotation' includes new and different items with that essential meaning. The Court assesses this by determining whether the new item possesses all the essential attributes.[60] The Court is bound by the essential meaning of the term, the connotation, but is not confined to the denotation the term had in 1900. The comments of Dawson J in

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57 Bennett Moses, 'Adapting the Law', above n 56, 395.

58 Ibid 417.

59 See Chin, above n 25, 620.

60 See Chin, above n 25, 620 (see in particular fn 70).

Street v Queensland Bar Association[61] illustrate how the High Court has conformed to a technical use of connotation/denotation device:

> The essential meaning of the constitution must remain the same, although with the passage of time its words must be applied to situations which were not envisaged at federation. Expressed in the technical language of the logician, the words have a fixed connotation but their denotation may differ from time to time. That is to say, the attributes which the words signify will not vary, but as time passes new and different things may be seen to possess those attributes sufficiently to justify the application of the words to them.
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> This technical use of the words 'connotation' and 'denotation' was adopted by John Stuart Mill and is described in his *A System of Logic: Ratiocinative and Inductive* (1875), pp 31-42. It is almost the converse of the popular or etymological use of those words in which 'to denote' merely means to signify and 'to connote' means to signify in addition. In *Commonwealth v Tasmania; Tasmanian Dam Case*, I intentionally use the two words in their popular sense, preferring that to the way in which they are used by the logician. I now doubt the wisdom of having done so. Previous judgments had used the terms in the technical sense more or less consistently for many years and, upon reflection, that usage seems to offer a precision which the popular usage does not.[62]

The connotation/denotation method, however, has come under criticism for being outdated and unsound epistemologically.[63] As Chin writes, difficulties arise where the technological advance outgrows the text so that 'denotation cannot be seen to possess all the essential attributes of the connotation' without departing in a radical way from the original 1900 meaning.[64]

Chin argues, in her examination of the relationship between the constitution and technological change, that although the constitution

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61 (1989) 168 CLR 461.

62 (1989) 168 CLR 461, 537-538.

63 See Chin, above n 25, 621; *R v Judges of the Federal Court of Australia and Adamson; Ex parte WA National Football League (Inc)* (1979) (1979) 143 CLR 190, 234 (*'Adamson')* (Mason J).

64 See Chin, above n 25,621.

has been stretched to accommodate evolutions in communications within the meaning of 51(v),[65] and evolutions within the meaning of the intellectual property power s 51(xviii),[66] the 'essential meaning' of these powers is characterised so broadly 'that it stretches the confines of the text'.[67] While the connotation/denotation method provides both fidelity to the text and has some capacity to accommodate for technological change, Chin suggests its failure to provide adequate guidelines for determining 'the essential meaning' of a provision is borne out in the differing opinions on technological decisions. So the connotation has expanded so far that it no longer correlates with the essential meaning of the provision as originally defined.

The lack of guidelines in determining essential connotation attributes, or a clear conceptual framework, allows the Court to take a broad or narrow view. As Zines states, connotation/denotation does not resolve the interpretative question 'but merely restates it'.[68] Chin concludes:

> The discretion created by connotation/ denotation and the search for the essential meaning allows the Court to adapt the constitution to technological change by characterising the essential meaning broadly. Although this could be seen to be a progressive approach to constitutional interpretation, a conservative Court can disguise it behind the literalist guise of a broad essential meaning.[69]

B *The Purpose-based Method of Construction*

In order to accommodate for technological evolution, Chin proposes that, in the context of constitutional interpretation, an alternative 'purpose-based' method is a better approach for the Courts to pursue. Within this framework the Court is guided by the purpose of a provision to determine the essential meaning, rather than essential attributes, of the constitutional term. This was reinforced in 1981 by s 15AA of the *Acts Interpretation Act 1901* (Cth) which provides:

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65 See *R v Brislan; Ex parte Williams* (1935) 54 CLR 262 (regarding radio); *Jones v Commonwealth (No 2)* (1965) 112 CLR 206 (regarding television).

66 *Grain Pool of Western Australia v Commonwealth of Australia* (2000) 202 CLR 479.

67 See Chin, above n 25, 626.

68 L Zines, *The High Court and the Constitution* (4th ed, 1997) 19.

69 Chin, above n 25, 633.

> (1) In the interpretation of a provision of an Act, a construction that would promote the purpose or object underlying the Act (whether that purpose or object is expressly stated in the Act or not) shall be preferred to a construction that would not promote that purpose or object.

The purpose of the statute is usually deduced from looking at the statute as a whole; however, Chin suggests the liberalisation of the rules concerning the use of extrinsic materials has also lead to consultation with the history of the statute, international agreements, commissioned reports, and parliamentary debates.[70]

The purposive approach that Chin proposes is still relatively moderate. Chin acknowledges when accommodating for technological change it is critical that the purpose is applied in light of contemporary developments.[71] However, she goes on to suggest that her proposed method is moderated 'because it requires the purpose to be fixed to the text, structure and history of the constitution rather than to the concept of the constitution as a living force.'[72] A final critical point she makes that distinguishes her position from the connotation/denotation method, and also from a more liberal understanding of the purposive approach, is that 'the emphasis on purpose, as determined by extrinsic sources, could represent a move away from literalism to embrace elements of textualism, originalism and progressivism'. For Chin this approach can be effectively applied to the communications provision of s 51(v),[73] and therefore should cover 'broader' notions of communication, rather than individual notions, *including* digital communication and internet broadcasting.[74]

An important question to ask is whether this moderate approach of Chin goes far enough in the rapidly evolving new technology and broadband environment. Bennett Moses and Arthur Cockfield also suggest the best way to enhance legal flexibility in a context of ongoing technological

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70 See *Pambula District Hospital v Herriman* (1988) 14 NSWLR 387,394 (Kirby P), 410 (Samuels JA).

71 Chin, above n 25, 643.

72 Ibid.

73 Although Chin has reservations about its application to Australian Constitution s 51 (xviii).

74 As it has to radio (The *Bislan* decision) and television (the Jones decision).

change is to adopt a purposive approach; however, they propose an approach that is broader than what Chin suggests.[75] A broader more flexible purposive approach is arguably more suitable for accommodating changes in broadband technology. Bennett Moses comments:

> Both common law and statutory rules can be interpreted either rigidly or flexibly, with varying degrees of weight given to their underlying purposes. A judge applying a rule rigidly will enforce the rule without considering whether such application is in line with the rule's purposes, whereas a flexible judge will seek to preserve the rule's intended effect in spite of its wording. A judge adopting a purposive approach in dealing with cases involving new technologies is more likely to reach the result that would have been reached at the time of the rule's creation had the future been foreseen.[76]

As highlighted above, judges, unlike legislators, have a considerable degree of flexibility to accommodate rapid changes of technology within the common law. Indeed, as Bennett Moses suggests, 'the potential of a flexible interpretative approach is even more powerful in the context of common law rules'. Moses argues that judicial decision making is flexible enough to avoid problems of over- and under-inclusiveness. In addition, circumstances of binding precedent are quite limited: that is, the common law can evolve where different fact circumstances arise.

From reading Bennett Moses, the implication is that the purposive approach operates more efficiently when there is an emphasis on flexibility, compared to an emphasis on defining a 'conceptual framework for purpose' as proposed by Chin.[77] It is dependent on a diversity of factors including judicial temperament, and relevance of

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[75] Cockfield does this more explicitly than Bennett Moses. See Arthur Cockfield, *Towards a Theory of Law and Technology*, 30 *Manitoba L.J.* 383 (2004) and Bennett Moses, 'Recurring Dilemmas', above n 56.

[76] Bennett Moses, 'Recurring Dilemmas', above n 56.

[77] Bennett Moses does however provide interesting 'algorithms' in her analysis to better understand why, for example, law struggles to deal with technological change. Her approach however is broader and more flexible. That is, a response to technological change should encompass a judicial response, a law reform response and an administrative response; different circumstances will determine the type of response: *see* Bennett Moses, 'Recurring Dilemmas' above n 56.

the approach to a particular historical place and time. Bennett Moses comments that '[g]iven this diversity, it is worthwhile encouraging the purposive approach in those contexts where it is under-utilized'.[78] Unlike Chin's approach that appears to be rigidly pre-occupied with certainty and finding a conceptual framework in which the purposive method can operate, Bennett Moses has more faith in judiciary to be able to adapt the approach to changing circumstances — particularly in circumstances where the approach is 'under-utilised'.

Indeed, although Chin argues that the purposive approach she endorses can be effectively applied to s 51(v) of the constitution, she is sceptical whether a purposive approach would be beneficial in the context of the intellectual property power.[79] However, as Rimmer suggests, 'such conservative expectations about judicial interpretation and hermeneutics were not well-founded'.[80]

In the *Grain Pool* decision for example, Rimmer argues that the judges were moved by 'a stronger impulse' to take a flexible approach to new technology, and in that case, scientific development. We expand on the quote, cited above, endorsing the judgment of Justice Higgins in the *Union Label* case:

> These words do not suggest, and what follows in these reasons does not give effect to any notion that the boundaries of the power conferred by s 51(xviii) are not to be ascertained solely by identifying what in 1900 would have been treated as a copyright, patent, design or trade mark. No doubt some submissions by the plaintiff would fail even upon the application of so limited a criterion. However, other submissions, as will appear, fail, because they give insufficient allowance for the dynamism which, even in 1900, was inherent in any understanding of the terms used in s 51(xviii).[81]

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78 Bennett Moses, 'Recurring Dilemmas', above n 56.

79 Chin primarily explains its incompatibility because of the absence of historical records pertaining to the drafting of s 51(xviii).

80 See M Rimmer, 'Franklin Barley: Patent Law and Plant Breeders' Rights' (2003) 10(4) *MUEJL* [14] <www.murdoch.edu.au/elaw/issues/v10n4/rimmer104nf.html >.

81 *Grain Pool of Western Australia v Commonwealth of Australia* (2000) 202 CLR 479, 495-496.

The joint judgment relied on historical studies concerning the evolution of intellectual property, and considered how the historical roots of intellectual property in Australia had developed in the United Kingdom in the nineteenth century. The joint judgment considered the records pertaining to plant variety inventions and drew comparisons with the history of US precedent.

The above example suggests that the courts do not have to be bound by an explicitly defined notion of 'purpose' to accommodate change. Indeed, adopting such an approach risks undermining the one advantage that common law judicial decision making has: the flexibility to implicitly develop the law without being limited by the rigidity of a normative framework.

C *The Way Ahead*

The recent joint judgment in High Court decision of *Stevens v Sony*[82] provides a snapshot of the continuing tensions. The case suggests that a relatively narrow interpretative approach may be adopted when considering electronic technology issues. In terms of defining the TPM, the joint judgment held:

> [T]hat the true construction of the definition of 'technological protection measure' must be one which catches devices which prevent infringement. The Sony device does not prevent infringement. Nor do many of the devices falling within the definition advanced by Sony. The Sony device and devices like it prevent access only after any infringement has taken place.[83]

Brennan argues that the outcome reached by the High Court may be inconsistent with the objective purpose of the provision. Indeed, Brennan highlights that the international treaty obligations relevant to the issue in the case, which Australia attempted to implement,[84] reflected 'one attempt at an international level to preserve market opportunities for creative and cultural industries in that environment'.[85] Brennan continues:

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82 *Stevens v Sony* (2005) 221 ALR 448.

83 See *Stevens v Sony* (2005) 221 ALR 448 [46].

84 *Copyright Act 1968* (Cth) s 116A.

85 See Brennan, above n 33, 81: in particular his analysis on the history of the provision at 85–88.

> In the courts it has failed to protect the very technological measure explicitly envisaged by the original framers of its key language. This outcome can be attributed, in part, by a failure to have sufficient regard to the etymology of the expression 'prevent or inhibit the infringement of copyright'.[86]

The case highlights the need for courts to be flexible when considering the 'essential meaning' of a statute in the context of understanding the interaction between new technology and the law. In the *Sony* decision extrinsic materials, such as international instruments that framed the purpose of the Australian provisions, ultimately had limited influence. McHugh J comments:

> [S]ometimes — opponents of the purposive construction would say most of the time — the purpose of the statute in general, and the purpose of its individual sections in particular, is elusive. Similarly, sometimes context gives little - even no - guidance. In the present case, I think that it is impossible to discern the purpose of the relevant provisions, except by reference to the text. And I think that the historical background, the parliamentary history of the legislation and the extrinsic materials — the context — lead to no conclusion other than that the Federal Parliament resolved an important conflict between copyright owners and copyright users by an autochthonous solution.[87]

If a purposive approach is going to be favoured, which it should in the context of new technology issues, there has to be less emphasis on establishing neatly defined purpose based methodologies, and more emphasis on the use of extrinsic materials in judicial reasoning to assist in determining 'essential meaning'.

The issue of how best to construe statutes where the factual assumptions grounding the laws have been superseded by technological change will only accelerate in the future. As the pace of technological change increases and the pace of legislative change remains unchanged, the time lag between technological change and appropriate legislative response is likely only to widen. In such a context, it is imperative that there be clear and consistent principles for the operation of statutes

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86 Ibid 96–97.

87 *Stevens v Sony* (2005) 221 ALR 448 [125].

affected by such change. A reliance on the purposive method, which seeks to establish the essential meaning of the statute without an undue weight being accorded to the delineation of a normative conceptual framework for the statute, seems to provide the most malleable and effective response to the problem. A deeper analysis than one provided in this initial overview will be required in the future to determine the feasibility of such approaches.

CASE NOTES