

## OF SHRINK-WRAPPS, 'CLICK-WRAPPS' AND REVERSE ENGINEERING: RETHINKING TRADE SECRET PROTECTION

MEGAN RICHARDSON\*

### I INTRODUCTION

The American legal realist and judge, Benjamin Cardozo, said that 'new times and new manners may call for new standards and new rules'.<sup>1</sup> Or at least old standards and rules may need to adapt to cope with new circumstances and practices.<sup>2</sup> It is my contention that trade secret law — in our jurisdiction that part of the equitable doctrine of breach of confidence and contract law pertaining to the protection of trade secrets — is a case in point. Other subcategories of intellectual property law have proved to be relatively elastic in the face of changing circumstances and practices.<sup>3</sup> But in the case of trade secrets, rigid adherence to narrow doctrinal limits and limited scope allowed for contracting in the recent history of the law casts a worrying pall over its future. There are many and varied ways in which secret information may be obtained and used without consent in today's world, not all of them well-addressed under trade secret law.<sup>4</sup>

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\* Associate Professor, Law Faculty, University of Melbourne; Visiting Professor, Washington and Lee University, Virginia (Fall term, 2002). I am grateful to Chee-Wah Cheah, Yanson Ching, Frances Hanks, Wendy Gordon, David Lindsay, Philip Williams and especially Sally Wiant for helpful comments during the gestation and drafting of this paper, and to Daniel Clough who at the initial stage spurred me to think seriously about these issues. I am also grateful to Andrew Mitchell for valuable research.

1 Benjamin Cardozo, *The Nature of the Judicial Process* (1921) 88.

2 See especially *ibid* 94–7.

3 See further Megan Richardson, 'Sui Generis Intellectual Property Law Reform: Issues for Australia' (2001) 32 *Victoria University of Wellington Law Review* 19; Megan Richardson, 'The Changing Face of Intellectual Property Law in Australia: Economic and Comparative Perspectives' in Michael Whincop (ed), *Bridging the Entrepreneurial Financing Gap: Linking Governance with Regulatory Policy* (2001) 164.

4 Various explanations may be given: see, for instance, Henry Ergas, 'Changes in the Science and Technology System and Some of their Implications for the Protection of Intellectual Property' (1999) 39 *Intellectual Property Forum* 28, 28 (attributing this to greater amount of 'codified information' — once obtained easily understood and used — in an information economy centered around computers and biotechnology); Kenneth Dam, 'Self-Help in the Digital Jungle' (1999) 28 *Journal of Legal Studies* 393 (pointing to greater skills and technology available and devoted to breaking down technical barriers that might prevent access to secret information, especially by a process of reverse engineering, that is working back from, products on the market); Marina Lao, 'Federalizing Trade Secrets Law in an Information Economy' (1998) 59 *Ohio State Law Journal* 1633, 1647 (noting the problem of increased employee mobility coupled with reduced employee loyalty to current and old employers). See also John Perry

On the other hand there is cause for more optimism if we look to trade secret protection as concerned basically with fostering disclosure and use of non-public-domain information on terms acceptable to trade secret owners as well as users. In its essential features the law reflects modern-day standards of efficient cooperation. It could still be made more effective to those ends.

Sections II and III of this article illustrate the problematic scope of protection granted to trade secrets in common law jurisdictions, including Australia, and the inadequacy of responses to date. Section IV is concerned with the impetus for change and the direction that might take. Drawing in part on economic theory, I suggest that a more positive future for trade secret law rests on the following. First, explicit acknowledgment that trade secrets are 'property', able to be traded in the market for the common good of owners as well as users. Second, a greater role accorded to contract as a mechanism for effecting such trades, subject to the potentially restraining effect of contract law as well as competition and constitutional law. Third, some reassessment of the current scope of non-contractual trade secret protection to match what might be agreed as between owners and users (and third parties) in an ideal bargaining situation in which no one party's interests take precedence over those of another.

## II PROBLEMATIC ASPECTS OF THE LAW

Trade secret misappropriation is variously classed as a tort (in the United States ('US')) or as an aspect of the equitable or sui generis wrong of breach of confidence (in the rest of the common law world).<sup>5</sup> In Australia it is recognised as an equitable wrong.<sup>6</sup> Australian courts have also been particularly reluctant to assert that trade secret protection may be based on a proprietary right — although it is not entirely clear whether they are denying a proprietary character

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Barlow, 'The Economy of Ideas' (1994) 2(3) *Wired* 84 (pointing with approval to an emerging subculture that information 'wants to be free'). As Lawrence Lessig notes in 'The Law of the Horse: What Cyberlaw Might Teach' (1999) 113 *Harvard Law Review* 501, 508 ff, social norms may provide sufficient protection from unauthorised access to and use of information without the need for intellectual property law. But they also may at times provide insufficient protection — at least, viewed from the perspective of those who generate information.

- 5 In the US trade secret law is a creature of the common law and statute: see American Law Institute, *Restatement of the Law Third: Unfair Competition* §§ 41–5 (1995); National Conference of Commissioners on Uniform State Laws, *Uniform Trade Secrets Act* (1985) 14 ULA 433 (1990) ('UTSA') (enacted in some 42 States), the main purpose of which was to codify the basic principles of common law trade secret protection. The equitable jurisdictional basis for the breach of confidence doctrine which covers trade secrets (among other things) is largely accepted in Anglo-Australian jurisdictions: see *Coco v A N Clark (Engineers) Ltd* [1969] RPC 41, 46 (Megarry J); *Moorgate Tobacco Co Ltd v Philip Morris Ltd (No 2)* (1984) 156 CLR 414, 438 (Deane J); *Smith Kline & French Laboratories (Aust) Ltd v Department of Community Services and Health* (1990) 22 FCR 73, 121 (Gummow J) — although for some residual uncertainty see *Attorney-General v Guardian Newspapers Ltd (No 2)* [1990] 1 AC 109, 281–2 (Lord Goff). In Canada a sui generis jurisdictional basis for the breach of confidence doctrine was propounded and accepted in *Lac Minerals Ltd v International Corona Resources Ltd* [1989] 2 SCR 574; see also *Cadbury-Schweppes Inc v FBI Foods Ltd* [1989] 1 SCR 142, 158–63 (Binnie J).
- 6 See generally (on the nature and scope of the Australian doctrine) Megan Richardson, 'Breach of Confidence' in Patrick Parkinson (ed), *Principles of Equity* (2<sup>nd</sup> ed, 2002) 420.

to the information protected or simply positing that the scope of protection against misappropriation does not depend upon any proprietary right in the information. The second is more plausible.<sup>7</sup> Thus, for instance, in the leading case of *Moorgate Tobacco Co Ltd v Philip Morris Ltd (No 2)*,<sup>8</sup> Deane J in the Australian High Court said of the basis of the relief granted against an ‘actual or threatened abuse of confidential information’:

Like most heads of exclusive equitable jurisdiction, its rational basis does not lie in proprietary right. It lies in the notion of an obligation of conscience arising from the circumstances in or through which the information was communicated or obtained.<sup>9</sup>

In any event, the equitable classification does not appear to have affected the scope of what constitutes trade secret misappropriation compared to other common law jurisdictions, including the US where the proprietary character of a trade secret is more openly acknowledged.<sup>10</sup> At its simplest, the *malum prohibitum* encompasses unauthorised acquisition, disclosure or use of secret information by those who have notice of its secrecy, as judged by the standard of the ‘reasonable person’.<sup>11</sup> Australian courts have been among the most liberal in acknowledging that the wrong covers not only unauthorised disclosure or use of information imparted and received for limited purposes (with liability for breach extending also to third parties subject to notice). Surreptitious or improper obtaining and consequential disclosure or use of information may also violate the misappropriation standard.<sup>12</sup> That position was only established in the United Kingdom (‘UK’) towards the end of the 1980s.<sup>13</sup> In the US improperly obtaining confidential information has been longer accepted as a general basis for liability.<sup>14</sup>

On the other hand, there is some recognition under the trade secret misappropriation doctrine of the separate interests of those who would wish to use or disclose information as well as others who might benefit from the use or disclosure. Most common law jurisdictions — including the UK and US —

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7 Gummow J at least has drawn the distinction correctly: see *Smith Kline & French Laboratories (Aust) Ltd v Department of Community Services and Health* (1990) 22 FCR 73. See also (for the comparable US approach) American Law Institute, *Restatement of the Law Third: Unfair Competition* § 40, comment a (1995).

8 (1984) 156 CLR 414.

9 *Ibid* 438, citing *Commonwealth v John Fairfax & Sons Ltd* (1980) 147 CLR 39, 50–2 (Mason J).

10 American Law Institute, *Restatement of the Law Third: Unfair Competition* § 39, comment b (1995) (requirement that information qualifies for protection as a trade secret incorporates elements of secrecy and value that underlie the property rationale).

11 What the ‘reasonable man’ in the position of the recipient would understand is the standard identified in particular for confidential disclosures made in the context of a relationship of confidence: *Coco v A N Clark (Engineers) Ltd* [1969] RPC 41, 46 (Megarry J). But the standard is capable of broader application. Query whether a further requirement exists that the obligation itself be ‘reasonable’ or ‘just in all the circumstances’: see *Attorney-General v Guardian Newspapers Ltd (No 2)* [1990] 1 AC 109, 281 (Lord Goff).

12 See *Franklin v Giddins* [1978] Qd R 72. And cf *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* (2001) 185 ALR 1, 11 (Gleeson CJ), 86 (Callinan J).

13 See especially *Attorney-General v Guardian Newspapers Ltd (No 2)* [1990] 1 AC 109, 281 (Lord Goff) (notice, or what might be held to be agreed, the basis of an obligation binding in justice).

14 American Law Institute, *Restatement of the Law Third: Unfair Competition* § 40 (1995) and *UTSA*, above n 5, § 1(2).

admit a flexible exception permitting publication of trade secrets when this is in the 'public interest', covering a wide range of circumstances.<sup>15</sup> In Australia the existence of the exception has been a matter of controversy, with some judges advocating a narrower principle that information that would disclose iniquity could not be the subject of protection from breach of confidence.<sup>16</sup> Nevertheless, the weight of authority appears to support the broader exception.<sup>17</sup> In *Commonwealth v John Fairfax & Sons Ltd*,<sup>18</sup> Mason J said that such an exception protects the public from 'destruction, damage or harm'.<sup>19</sup> Thus understood it provides an important vehicle for protecting free speech interests, especially but not only where their protection is constitutionally mandated (as under the implied freedom of political discussion under the *Australian Constitution*).<sup>20</sup>

Further, courts in common law jurisdictions have maintained and made use of their discretion to apply a flexible approach to remedies. Although an injunction is the normal remedy sought and granted for breach of confidence, courts have sometimes refused an injunction and instead permitted a particular use to occur on payment of the monetary remedy. An example is the well-known English case of *Seager v Copydex Ltd*,<sup>21</sup> where the defendant contributed skill and expertise in developing a carpet grip based in part on the plaintiff's design. Breach was found but only damages based on 'the price which a willing buyer — desirous of obtaining [the plaintiff's information] — would pay for it' (in the words of Lord Denning MR) were awarded.<sup>22</sup> In such cases, Megarry J later suggested in

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15 See generally (UK position) *Attorney-General v Guardian Newspapers Ltd (No 2)* [1990] 1 AC 109, 281–2 (Lord Goff) (although the basis of the law's protection of confidence is that there is a public interest that confidences should be preserved and protected by the law, nevertheless that public interest may be outweighed by some other countervailing public interest which favours disclosure); and (US law) American Law Institute, *Restatement of the Law Third: Unfair Competition* § 40, comment c (1995) (the existence of a privilege to disclose another's trade secret depends on the circumstances of the case).

16 See especially *Smith Kline & French Laboratories (Aust) Ltd v Department of Community Services and Health* (1990) 22 FCR 73, 110–11 (Gummow J) and cases cited.

17 Cf *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* (2001) 185 ALR 1, 12 (Gleeson CJ) (agreeing with the proposition that 'a defence based on the public interest would be available' in *Hellewell v Chief Constable of Derbyshire* [1995] 1 WLR 804, 807 (Laws J)).

18 *Commonwealth v John Fairfax & Sons Ltd* (1980) 147 CLR 39.

19 *Ibid* 56–7.

20 See generally Megan Richardson, 'Freedom of Political Discussion and Intellectual Property Law in Australia' (1997) 19 *European Intellectual Property Review* 631. Note also (effect of constitutional freedom) *Australian Broadcasting Corporation v Lenah Game Meats Pty Ltd* (2001) 185 ALR 1, 12 (Gleeson CJ), 57 ff (Kirby J). Sometimes the line might be difficult to draw: see, for instance, *DVD Copy Control Association Inc v Bunner*, 93 Cal App 4<sup>th</sup> 648 (2001) ('DVD v Bunner') (*United States Constitution's* first amendment held to prevent reliance on a click-on licence to prevent publication by a third party of computer program source code on the Internet on the basis that source code is expressive, and therefore is speech — an extreme characterisation. The plaintiff's petition for review by the California Supreme Court has been granted: see *DVD Copy Control Association Inc v Bunner*, 41 P 3d 2 (2002)).

21 [1967] 2 All ER 415.

22 *Seager v Copydex Ltd (No 2)* [1969] 2 All ER 710, 720 (Lord Denning MR). See also *Cadbury-Schweppes Inc v FBI Foods Ltd* [1989] 1 SCR 142 (equitable compensation, based on a one year licence fee, awarded against Canadian defendant).

*Coco v A N Clark (Engineers) Ltd* ('*Coco v A N Clark*'),<sup>23</sup> the essence of the duty of confidentiality has become one 'of not using without paying rather than of not using at all'.<sup>24</sup>

Finally, it is generally acknowledged by courts of common law jurisdictions that trade secret owners and users might wish to determine by contract the scope of protection to be granted to trade secrets. That is, they might wish to contractually agree on the limited purposes for which the information may be used. So, for instance, in *Moorgate Tobacco v Philip Morris*,<sup>25</sup> Deane J qualified his statement of the scope of the equitable misappropriation doctrine by reference to cases involving breach of 'some express or implied contractual provision', the latter to be treated on its own terms.<sup>26</sup>

Drawn this wide, the trade secret misappropriation doctrine — supplemented or superseded by whatever contractual arrangements parties may wish to make as between themselves — would seem to be capable of a broad and flexible application, consistent with modern practices and circumstances. But in fact this is not entirely true. To begin with, there are certain rather rigid and formalistic exceptions to the scope of protection granted against trade secret misappropriation which apply across all common law jurisdictions. In particular, reverse engineering — or working back from a product on the market to determine its secrets — is permitted, as is the use or even publication of the information obtained.<sup>27</sup> Such a broadly framed exception developed in an age when reverse engineering was seen as arduous and costly. Thus the alternative of breaching confidence could still be characterised as a short cut which the law could condemn as giving an unwarranted 'head start' over legitimate competitors.<sup>28</sup> But in the recent English case of *Mars UK Ltd v Teknowledge Ltd* ('*Mars v Teknowledge*') it was apparent reverse engineering could be a relatively easy exercise in today's world of codified computer information products, at least provided the party doing it is sufficiently skilled.

In that case, the defendant apparently had so little difficulty in reverse engineering the plaintiff's coin changing machine to discover the secret of its encrypted electrically erasable programmable read-only memory ('EEPROM')

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23 [1969] RPC 41.

24 *Ibid* 50.

25 (1984) 156 CLR 414.

26 *Ibid* 438. See also (for other leading statements) *Saltman Engineering Co Ltd v Campbell Engineering Co Ltd* (1948) 65 RPC 203, 214–15; *Coco v A N Clark* [1969] RPC 41, 46 (Megarry J); *Attorney-General v Guardian Newspapers Ltd (No 2)* [1990] 1 AC 109, 281 (Lord Goff); and (US position) American Law Institute, *Restatement of the Law Third: Unfair Competition* § 40, comment a (1995).

27 See *Saltman Engineering Co Ltd v Campbell Engineering Co Ltd* (1948) 65 RPC 203, 215 (Lord Greene MR) (defendant could have reverse engineered plaintiff's tools on the market and saved itself from breaching confidence); *Terrapin Ltd v Builders Supply Co (Hayes) Ltd* [1960] RPC 128, 391–2 (Roxburgh J) (reverse engineering plaintiff's portable buildings on the market would be allowed); *Mars UK Ltd v Teknowledge Ltd* [2000] FSR 138, 149–51 (Jacob J) (plaintiff had no basis for claiming breach of confidence when defendant reverse engineered plaintiff's EEPROM). Cf (US law) American Law Institute, *Restatement of the Law Third: Unfair Competition* § 43 (1995); *UTSA*, above n 5, § 1, comment 2.

28 See, eg, *Saltman Engineering v Campbell Engineering* (1948) 65 RPC 203, 215 (Lord Greene MR) (defendant saved themselves the 'necessary trouble' of reverse engineering).

(which allowed the machines to be re-calibrated for new kinds of coins) that the very secrecy of the information could be questioned.<sup>29</sup> On the action for breach of confidence, Jacob J held that the reverse engineering freedom applied, stating ‘I do not think even an express statement would work to override the buyer’s entitlement to find out how his machine worked’.<sup>30</sup> The irony of a remedy nevertheless being available for breach of copyright, which does not treat reverse engineering so liberally, was not remarked upon. Only in the US can such different results be explained simply on the basis of the pre-eminence given to copyright and patent rights under the *United States Constitution* — with State trade secret misappropriation doctrines regarded as necessarily weaker than federal copyright and patent law, including in the freedom to reverse engineer.<sup>31</sup> Further, query whether Jacob J in *Mars v Teknowledge* saw the entitlement to reverse engineer as extending even to an express *contractual* proscription, relying as he appeared to on the immutable right to exercise dominion over the physical object which had been lawfully purchased.<sup>32</sup>

Moreover, although the tort or wrong of trade secret misappropriation is ostensibly subject to the possibility that trade secret owners and users might wish to determine by contract the scope of protection to be granted to their information, *in practice* their ability to do so can be limited. In the past courts have quite commonly relied on the equitable, tortious or sui generis doctrine to determine the scope of protection, even where a relevant contractual provision existed.<sup>33</sup> Until recently this has not really been questioned. But lately the emerging practice of using shrink-wrap and click-on licences as a mechanism for

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29 *Mars v Teknowledge* [2000] FSR 138, 149 (Jacob J) (although the judge’s conclusion that it was not seems dubious, given the position accepted in earlier cases that information is secret until it fully reaches the public domain: see, eg, *Saltman Engineering v Campbell Engineering* (1948) 65 RPC 203, 215 (Lord Greene MR)). Jacob J went on to consider other reasons why breach of confidence would not be found, on the assumption that the information was confidential.

30 *Ibid* 151. See also 149, citing *Alfa Laval Cheese Systems Ltd v Wincanton Engineering Ltd* [1990] FSR 583, 592 (Morrit J).

31 *Kewanee Oil Co v Bicorn Corporation*, 416 US 470 (1974); *Bonito Boats, Inc v Thunder Craft Boats, Inc*, 489 US 141 (1989) (both maintaining that State trade secret misappropriation doctrines must give weaker protection than federal patent and copyright laws enacted pursuant to the *United States Constitution*. Otherwise trade secret law may be preempted as offering conflicting protection). Even Australia does not take this position. Legislation with respect to patents, copyright and trade marks is exclusively within federal power under the *Australian Constitution*. However, common law and equity — including the equitable doctrine of breach of confidence — is not only the law of the States and Territories but also of Australia, with the High Court as the ultimate authority. A federal intellectual property statute might still supersede (non-statutory) confidentiality law as a matter of statutory interpretation (as, for instance, in the case of the *Patents Act 1990* (Cth) which mandates publication of the information if the patent is to be granted). However, the *Copyright Act 1968* (Cth) states in s 9(3) that ‘[t]his Act does not affect the operation of the law relating to breaches of trust or confidence’.

32 At least in *Alfa Laval Cheese Systems v Wincanton Engineering* [1990] FSR 583 (the case cited on this point in *Mars v Teknowledge* [2000] FSR 138), Morrit J made express reference to the fact that in that case there was no contractual prohibition on reverse engineering.

33 See further (UK and Australian position) Richardson, ‘Breach of Confidence’, above n 6. See also (US position) American Law Institute, *Restatement of the Law Third: Unfair Competition* § 40, comment a (1995) (the existence of a contract does not preclude a separate action in tort) and § 41, comment d (over-broad contracts may fall foul of the common law restraint of trade doctrine — elaborated further in *Mathias v Jacob*, 167 F Supp 2d 606 (SD NY, 2001)).

mass distribution of computer information-based products has put pressure on courts to respond to arguments that the principle of freedom of contract should prevail. Typically, and somewhat surprisingly, in these cases the trade secret component of the information has not been stressed. The arguments proceed simply on the basis of the ability to contract about the use of information per se. The judicial enthusiasm for such claims has been mixed.

In the US copyright law's first sale doctrine has been identified in one Californian case as standing in the way of full enforcement of shrink-wrap licence terms — although the justification and limits of such overriding effect was not well explained and is still to be fully tested.<sup>34</sup> More generally, contract law doctrines have on occasion provided barriers to enforcement of mass-market standardised licence terms.<sup>35</sup> Such doctrines are not necessarily insurmountable hurdles for those prepared to adopt or adapt their practices to ensure proper notice is given and all parties to be bound freely and fully agree.<sup>36</sup> Indeed, the discipline of contract law in ensuring parties' interests are protected may be seen as generally desirable — so why should it be any different here? But the worry is that certain more open-ended doctrines such as 'restraint of trade' (typically applied in the ex-employment context but by no means restricted to that) and 'unconscionability' might be deployed to provide a basis for second guessing the reasonableness of contractual licence terms.<sup>37</sup> There is some recent possible

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34 *SoftMan Products Co, LLC v Adobe Systems Inc*, 171 F Supp 2d 1075 (CD Cal 2001), the conclusion apparently premised on a lack of assent to the terms in the particular case (and an alternative copyright infringement claim). Contrast (contracts per se not pre-empted by copyright law) *Bowers v Baystate Technologies*, 302 F 3d 1334 (Fed Cir, 2002) referring also to *ProCD, Inc v Zeidenberg*, 86 F 3d 1447 (7<sup>th</sup> Cir, 1996). Australia has also seen questions raised about the ability to 'contract out' of the scope of copyright protection, normally seen as governing computer software licenses (in the absence of a valid patent). The Copyright Law Review Committee was asked to report on the matter in 2001. Its final recommendation was that, although contracting out of the *Copyright Act 1968* (Cth)'s fair dealing defences should generally not be permitted, the separate status accorded to confidentiality agreements under s 9(3) of the *Copyright Act 1968* (Cth) should not be affected: Copyright Law Review Committee, *Copyright and Contract* (2002).

35 Some US courts have been receptive to arguments from freedom of contract: see (allowing enforcement of shrink-wrap licence terms under the Uniform Commercial Code provisions relating to sales of goods: National Conference of Commissioners on Uniform State Laws and the American Law Institute, *Uniform Commercial Code Article 2 – Sales* (1992)) *ProCD, Inc v Zeidenberg*, 86 F 3d 1447 (7<sup>th</sup> Cir, 1996); *Hill v Gateway 2000 Inc*, 105 F 3d 1147 (7<sup>th</sup> Cir, 1997) (enforcement of click-on licence terms 'agreed to' under a click-through process before order submitted); *Caspi v Microsoft Network*, 732 A 2d 528 (NJ Super 1999). See, however, *Klocek v Gateway Inc*, 104 F Supp 2d 1332 (D Kan 2000) (holding additional terms notified at receipt of the product, non-binding without assent) and *SoftMan Products Co, LLC v Adobe Systems Inc*, 171 F Supp 2d 1075 (CD Cal 2001) (holding non-compliance with a prescribed mechanism for assent negated assent). Cf (for a UK case) *Beta Computers (Europe) Ltd v Adobe Systems (Europe) Ltd* (1995) 35 IPR 147, 158 (Lord Penrose) — holding a contract entered into under the aegis of a shrink-wrap licence could not be concluded until the terms on which the information could be used were produced and accepted by the purchaser.

36 For a useful treatment of the issues see Michel Jaccard, 'Securing Copyright in Transnational Cyberspace: The Case for Contracting with Potential Infringers' (1997) 35 *Columbia Journal of Transnational Law* 619.

37 For arguments that they should see, for instance, Gail Evans, 'Opportunity Costs of Globalizing Information Licenses: Embedding Consumer Rights within the Legislative Framework for Information Contracts' (1999) 10 *Fordham Intellectual Property Media and Entertainment Law Journal* 267, 300 especially (and generally arguing for strong regulation of shrink-wrap and click-on licences under an

precedent for this approach in Australia. In *Maggbury Pty Ltd v Hafele Australia Pty Ltd*<sup>38</sup> (*Maggbury v Hafele*) a perpetual confidentiality obligation in a commercial licence was held invalid under the restraint of trade doctrine on the basis that the parties were ‘in trade’ and the activities restrained were part of that trade.<sup>39</sup> Although the facts of the case were extreme (the information had been published by the plaintiff in a patent application so was no longer secret),<sup>40</sup> the generalised language of the High Court’s judgment might be taken to support a judicial lack of enthusiasm for contractual protection of trade secrets — at least where extending beyond the equitable scope.

It is early days yet to judge the final direction courts will take, yet the conclusion that trade secret law has not adapted to address contemporary challenges is clearly possible. The risk is a minimal future for trade secret law. The implications are considered next.

### III INADEQUATE RESPONSES TO DATE

Those who deny that a minimal role for trade secret law is a matter of concern may not necessarily question the benefits of intellectual property protection.<sup>41</sup> Rather, their position may be that the mainstream intellectual property systems — patent, copyright and trade mark law — should largely determine the scope and limits of intellectual property protection. The assumption here seems to be that all information that can be pressed within the parameters of mainstream protection — as inventions, copyright works or related subject matter, or trade marks — should be protected on the rather tailored terms of these regimes.<sup>42</sup>

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extended application of standard contract law doctrines). For some judicial support by a US court see *Brower v Gateway 2000 Inc*, 676 NYS 2d 569 (AD 1998) (arbitration clause held substantively unconscionable because of cost of arbitration). See also *Maggbury Pty Ltd v Hafele Australia Pty Ltd* (2001) 185 ALR 152, see below n 38 and accompanying text.

38 (2001) 185 ALR 152.

39 *Ibid* 167–8 (Gleeson CJ, Gummow and Hayne JJ). Kirby and Callinan JJ dissented.

40 *Ibid*. The court observed that ‘[w]hatever else may be said of the notion that confidential information is to be regarded as proprietary in nature, that analysis cannot be sustained where the information has become available from public sources as a result of disclosures by the party asserting that quality of confidence’.

41 Such questioning is beyond the scope of this article. Even here the arguments vary, from those who reject the benefits of proprietary rights in information on communitarian grounds, to those who simply argue that there are alternative (more efficient or effective, or at least more socially palatable) ways of controlling the use of information. For instance, Edmund Kitch has stressed the ‘tacit’ character of information that can only be learned by experience as a reason to think trade secret protection (for this type of information) need not be particularly powerful: see Edmund Kitch, ‘The Law and Economics of Rights in Valuable Information’ (1980) 9 *Journal of Legal Studies* 683. But this latter argument is now perceived as less significant given the movement towards codification of information, for instance (but not only) in the computer software and biotechnology industries: see Ergas, above n 4, 28. The more basic questioning of the foundation of intellectual property rights is briefly and inadequately considered below.

42 As noted by Pamela Samuelson et al, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ (1994) 94 *Columbia Law Review* 2308; and further Jerome Reichman, ‘Legal Hybrids Between the Patent and Copyright Paradigms’ (1994) 94 *Columbia Law Review* 2432.



Such positions appear to be less grounded in logic than simply historical products of the early prominence of the mainstream systems, including their acknowledgment in the great 19<sup>th</sup> century Berne and Paris Conventions (and in the US and other national constitutions of the same general period).<sup>43</sup> Alternatively, it may be argued, as by Jacob J in *Mars v Teknowledge*,<sup>44</sup> that if information is embodied in a physical product protection should be subject to rights and obligations dictated by laws relating to physical goods (patent and, to some extent, copyright law providing limited exceptions). But such a position may be seen as too simplistic for a world where the physical product may be no more than a box for the information contained inside, as for instance with shrink-wrap licences.<sup>45</sup> Even where the physical product has a separate basis for existence going beyond its function as a container or physical embodiment, these functions can also be treated separately. Thus it is difficult to see why a freedom to reverse engineer should necessarily extend beyond the simple right to find out ‘how ... [the product] worked’, as Jacob J put it,<sup>46</sup> to include the right to use and even publish the information as something distinct from the product.

Finally, those denying the problematic nature of a minimal trade secret law may argue that there is an internal logic to the boundaries set within trade secret law, including its reverse engineering exception and the low priority given to contract. In their 1991 article on the economics of trade secret law,<sup>47</sup> David Friedman, William Landes and Richard Posner thus sought to find an economic coherence in trade secret law by pointing to the efficiency of allowing some types of access and use — those which entail derivative innovation (which they claimed reverse engineering typified)<sup>48</sup> — irrespective of the wishes of the trade secret owner. And, they added, since reverse engineering entails costs in carrying out the reverse engineering, this ‘automatically cuts down on the amount of free-riding on the first inventor’.<sup>49</sup> The conclusion was that enlightened persons behind a Rawlsian ‘veil of ignorance’ would agree on the freedom, appreciating they might wish to use the innovations of others as well as innovate themselves.<sup>50</sup> It is part and parcel of a trade secret law that provides a sort of

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43 As pointed out (with respect to the international conventions) by Reichman, above n 42, 2448–53; and (with respect to the *United States Constitution*) by Lao, above n 4, 1634–5.

44 [2000] FSR 138.

45 Cf the Scottish case *Beta Computers v Adobe* (1995) 35 IPR 147, 154 (Lord Penrose) (the ‘dominant characteristic’ of a computer software transaction is the information rather than the physical medium). This logic was apparently overlooked in the US shrink-wrap licence cases discussed above n 35, treated under the sale of goods provisions of the National Conference of Commissioners on Uniform State Laws and the American Law Institute, *Uniform Commercial Code Article 2 – Sales* (1992).

46 *Mars v Teknowledge* [2000] FSR 138, 151.

47 David Friedman, William Landes and Richard Posner, ‘Some Economics of Trade Secret Law’ (1991) 5 *Journal of Economic Perspectives* 61.

48 *Ibid* 69. The same rationale was expressed in *Bonito Boats v Thunder Craft Boats*, 489 US 141, 160 (1989) (reverse engineering is ‘an essential part of innovation’, likely to lead to ‘significant advances in technology’). And cf Pamela Samuelson and Suzanne Scotchmer, ‘The Law and Economics of Reverse Engineering’ (2002) 111 *Yale Law Journal* 1575, 1582–6 ff.

49 Friedman, Landes and Posner, above n 47, 69. Cf Samuelson and Scotchmer, above n 48.

50 Friedman, Landes and Posner, above n 47, 67 (‘[e]very producer of information desires, *ex ante* (behind the [Rawlsian] veil of ignorance), access to his competitors’ information as well as protection of his own’) and further, 70. For the Rawlsian veil of ignorance as a vehicle for selecting ideal principles for

hypothetical contract under which ‘only the most [socially] costly means of unmasking commercial secrets’ are prohibited.<sup>51</sup> Further, it was predicted, actual contracts would never be a significant feature of trade secret protection because of the transaction costs involved in contracting.<sup>52</sup>

Given the subsequent course of history, Friedman, Landes and Posner’s arguments can now be refuted. For instance, the assertion that contracting would be largely irrelevant to trade secret protection seems to have been disproved as a factual proposition with the recent experience of widespread standard form contracting (including over the Internet). Further, there is no clear evidence that reverse engineering *especially* facilitates derivative innovation<sup>53</sup> — or other social value for that matter, accepting that day-to-day technological and marketing expertise and commercial reputation can be as important as innovation to achieving a marketable result.<sup>54</sup> In *Mars v Teknowledge*,<sup>55</sup> for instance, the defendant’s apparent purpose in reverse engineering was simply to demonstrate its skill to the plaintiff in order to negotiate agency terms (a strategy that clearly backfired although Jacob J appeared sympathetic).<sup>56</sup> Finally, there is some considerable evidence that reverse engineering is a major source of rapid secrecy loss for trade secret owners,<sup>57</sup> especially in the codified information age.<sup>58</sup> Such

just distribution of resources, see John Rawls, *A Theory of Justice* (revised ed, 1999) 118–23.

51 Friedman, Landes and Posner, above n 47, 67.

52 *Ibid* 71:

an alternative to allowing extensive copying is to reply on voluntary transactions ... firms that wished to reverse engineer each others’ products could enter into cross-licenses permitting this; these would be like R&D joint ventures. Transaction costs might well be high, however, and one effect would be to make theft of trade secrets a more attractive substitute for contract than under current law.

53 See, eg, *Mars v Teknowledge* [2000] FSR 138 (defendant’s purpose in reverse engineering to negotiate favourable agency terms with the plaintiff).

54 See generally (finding commercialisation skills and expertise essential to achieving marketable results), David Teece, ‘Capturing Value from Innovation’ (1991) 26 *Les Nouvelles* 21.

55 [2000] FSR 138.

56 *Ibid* 152. In particular in suggesting the parties should now seek to find a more ‘sensible’ solution.

57 See Richard Levin, Alan Klevorick, Richard Nelson and Sidney Winter, ‘Appropriating the Returns from Industrial Research and Development’ (1987) *Brookings Papers on Economic Activity* 783 (survey of US manufacturers indicates that 6–12 months on average was the period a product innovator would have before the information came into the public domain); and, for comparable results in the UK, Edwin Mansfield, ‘How Rapidly Does New Industrial Technology Leak Out?’ (1985) 34 *Journal of Industrial Economics* 217. Recent data from the manufacturing sector is slightly more positive (12–18 months on average): Wesley Cohen, Richard Nelson and John Walsh, ‘Protecting their Intellectual Assets: Appropriability Conditions and Why US Manufacturing Firms Patent (Or Not)’ (Working Paper No 7552, National Bureau of Economic Research, 2000).

58 See especially Samuelson et al, above n 42, 2333–9, although drawing a distinction between information at or near the surface — where secrecy is easily lost; and information below the surface (including source code) where reverse engineering is difficult. However, as recent experience has shown even source code may be discovered by reverse engineering: see *DVD v Bunner*, 93 Cal App 4<sup>th</sup> 648 (2001). Query whether Samuelson has modified her position in Samuelson and Scotchmer, above n 48, see especially 1586: ‘we argue that a legal right to reverse engineer does not typically threaten an innovative manufacturer’.

considerations may explain the more restrictive treatment of reverse engineering<sup>59</sup> under copyright law.<sup>60</sup>

Of those who have seen the need for some reform in more recent years, various proposals have emerged as well as some actual reforms. Of the actual reforms, the most prominent is the recent enactment of anti-circumvention provisions into copyright legislation in many national jurisdictions, giving effect to international consensus of sorts found in the World Intellectual Property Organisation ('WIPO') *WIPO Copyright Treaty* 1996.<sup>61</sup> Such provisions seek to proscribe or control efforts to circumvent copyright owners' technological protection measures and rights management systems, although the precise terms of the legislation varies considerably across jurisdictions.<sup>62</sup> In effect, anti-circumvention provisions provide a kind of highly tailored *sui generis* trade secret protection since they support copyright owner efforts to restrict access to and/or use of their copyright material whereas copyright is normally limited to specific rights of reproduction, dissemination, adaptation and so on, rather than access or use *per se*.<sup>63</sup> But they are narrower than trade secret law in their focus on protection of copyright owners' interests. And they have been rightly criticised for their narrow technology-specific character, their complex and legally technical style of drafting, and the fact that the terms of protection vary considerably across jurisdictions so there is no real harmonisation, a particular problem when actual cases have a transnational dimension. Further, it has been noted that they tend to be rather owner-oriented in their focus, for instance giving little heed to the fair use or fair dealing defences that normally apply to copyright infringement which serve much the same function as the public interest exception to trade secret misappropriation.<sup>64</sup>

Another development of some interest has been the expanded scope of patent protection available to new technologies in some common law jurisdictions (in particular the US), especially in the readiness of patent officials to recognise the

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59 As noted before, there is no general reverse engineering exception to copyright infringement. However, limited exceptions may apply, as for instance with the computer program decompilation exceptions (to correct error, enable interoperability, etc) in the *Copyright Act 1968* (Cth): ss 47B–47H.

60 Similarly, it has been observed that circuit layouts legislation typically imposes requirements for derivative innovation as a condition of their reverse engineering exceptions: see Andrew Christie, *Integrated Circuits and their Contents: International Protection* (1995) 64.

61 *WIPO Copyright Treaty*, opened for signature 20 December 1996, 36 ILM 65 (entered into force 6 March 2002).

62 See generally Richardson, 'Sui Generis Intellectual Property Reform' and 'The Changing Face of Intellectual Property Law in Australia', above n 3, for an overview of these provisions and commentaries on them.

63 See, eg, *Copyright Act 1968* (Cth) as amended by the *Copyright Amendment (Digital Agenda) Act 2000* (Cth): ss 116A–116D covering manufacture, importation and (other) dealings in circumvention devices and provision of circumvention services, removal or alteration of electronic rights management information and commercial dealings in works whose electronic rights management information is removed.

64 These last criticisms have been particularly directed at the US *Digital Millennium Copyright Act 1998*, Pub L No 105-304, 112 Stat 2860 ('DMCA'). However, for a recent thoughtful defence of the DMCA (identifying *inter alia* the benefits for authors), see Jane Ginsburg, 'Copyright and Control Over New Technologies of Dissemination' (2001) 101 *Columbia Law Review* 1613.

possibility of patenting.<sup>65</sup> In Australia generously framed patenting provisions in a new *Patents Amendment (Innovation Patents) Amendment Act 2000* (Cth) now also explicitly allow for a simple process of patenting and extends patentability even in cases where the normal patent standards of novelty and inventiveness cannot be met. Instead, the standards of novelty and ‘innovation step’, a term capable of considerable latitude, apply.<sup>66</sup> Such reforms might be seen as presenting an alternative to trade secret law reform. By allowing for easier and less costly access to patenting they overcome the traditional problems with patenting for especially low-level innovation (as well as innovation of uncertain value). They may, however, be criticised for readily granting rights which prevent even independent development — something that lies outside the scope of trade secret protection — without such monopoly protection being justified in terms of the substantial creative effort (and usually investment of resources) required for a traditional invention.<sup>67</sup> Further, patenting still entails a degree of formality, including registration and disclosure, that trade secret law does not. And patent infringement requires a more substantial taking than simply the unauthorised access or use needed for trade secret misappropriation.<sup>68</sup> Thus it is not a true substitute for trade secret protection.

An emerging reform in the US is the adoption of a *Uniform Computer Information Transactions Act* (‘UCITA’) by the National Conference of Commissioners on Uniform State Laws (‘NCCUSL’).<sup>69</sup> To date this has only been adopted by two States (Virginia and Maryland) but is being promoted for wider adoption by NCCUSL who has assumed responsibility. However, this monolithic and widely criticised legislation — seen as biased in favour of information owners in not even requiring compliance with normal standards of contract law — is strongly challenged by academics, consumer advocates and a

65 See Robert Merges, ‘As Many as Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform’ (1999) 14 *Berkeley Technology Law Journal* 577 (criticising such leniency on the part of US patents office). See also, for a judicial reaction, *State Street Bank & Trust Co v Signature Financial Group, Inc*, 149 F 3d 1368 (Fed Cir, 1998) (a business method held patentable).

66 See *Patents Act 1990* (Cth) (as amended) ss 18(1A), s 7(4) (for definition of ‘innovative step’ as making a ‘substantial contribution to the working of the invention’). Note that, compared to standard patents, the registration process for innovation patents is less burdensome but also more lax in not providing for substantive examination until after registration.

67 See generally Richardson, ‘*Sui Generis* Intellectual Property Reform’ and ‘The Changing Face of Intellectual Property Law in Australia’, above n 3, for an overview.

68 The common requirement for all the essential integers of the patented invention to be taken restricts that law’s application compared to trade secret law. The distinction became clear in *Cadbury-Schweppes v FBI Foods* [1989] 1 SCR 142 where one essential integer of the plaintiff’s secret recipe was omitted in the defendant’s but that did not preclude the claim for breach of confidence.

69 National Conference of Commissioners on Uniform State Laws, *Uniform Computer Information Transactions Act* (amended 2001). See generally Sally Wiant, ‘Uniform Computer Information Transactions Act’ in *Encyclopedia of Library and Information Science* (forthcoming, 2002). For UCITA and its drafting history and subsequent events see also Carol A Kunze, *UCITA Online* (2002) <<http://ucitaonline.com>> at 15 November 2002.

range of public interest organisations.<sup>70</sup> In the tremendous debate which has emerged around *UCITA*, its other limitations in being rather narrowly focussed on computer information transactions<sup>71</sup> and thus setting up a two tier set of standards for contracting regarding the use of commercially valuable (and non-public domain) information<sup>72</sup> have hardly been noted. It is difficult at this stage to predict the likely future of *UCITA*. Its early and rather hasty adoption in two States is not taken as a particular reason for others to follow. Following concerns about *UCITA* voiced by the State Attorneys-Generals in a meeting last year,<sup>73</sup> and a review by an American Bar Association Taskforce earlier this year,<sup>74</sup> some revisions have been undertaken. But more may be necessary before widespread enactment can occur. And even then the draft legislation may simply fall by the wayside. In any event, as yet, nothing similar is in contemplation as yet for common law jurisdictions outside the US (although the possibility of *UCITA* applying extraterritorially in individual cases through a contractual choice of law provision should not overlooked).

In 1994 a significant academic proposal for reform of a quite different kind was made by well-known intellectual property scholars Pamela Samuelson, Randall Davis, Mitchell Kapor and Jerome Reichman. The particular problem they sought to address was the wide scope of the reverse engineering freedom under the trade secret misappropriation doctrine, and its capacity to undermine trade secret protection in the modern world. Their recommendation was that at least some kinds of trade secrets — primarily but not only concerning computer information — should be subject to special rules. The precise terms of the

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70 The proposals for uniform State legislation and earlier ones for reform along similar lines to the *Uniform Commercial Code* have been widely criticised: see, eg, Jerome Reichman and Jonathon Franklin, 'Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information' (1999) 147 *University of Pennsylvania Law Review* 875; Evans, above n 37; Pamela Samuelson and Kurt Opsahl, 'Licensing Information in the Global Information Market: Freedom of Contract Meets Public Policy' (1999) 21 *European Intellectual Property Review* 386; and (but sympathetic to the idea of contracting) Rochelle Dreyfuss, 'Do You Want to Know a Trade Secret? How Article 2B Will Make Licensing Trade Secrets Easier (But Innovation More Difficult)' (1999) 87 *California Law Review* 193.

71 'Computer information transaction' is defined in s 102(11) of *UCITA* as an agreement to 'create, modify, transfer, or licence computer information or informational rights in computer information'. Section 102(10) also defines 'computer information' as 'information in electronic form which is obtained from or through the use of a computer or which is in a form capable of being processed by a computer'.

72 Although the *UCITA* provisions extend to cases where a contract includes a computer information component, the non-computer information component is left to be dealt with under normal contract rules (including the Uniform Commercial Code's provisions relating to sales of goods: National Conference of Commissioners on Uniform State Laws and the American Law Institute, *Uniform Commercial Code Article 2 – Sales* (1992)). More generally, any non-computer information that may be the subject of a trade secret transaction is not covered by the provisions.

73 For a concerted rejection of the proposed legislation as one-sided (supporting information owner interests) by Attorneys-General of 32 States and 2 Territories see letter from National Association of Attorneys General to *UCITA* Drafting Committee, 18 November 2001 <<http://www.arl.org/info/letters/AGtoNCCUSL11.html>> at 15 November 2002.

74 Working Group of the American Bar Association, *American Bar Association Working Group Report on the Uniform Computer Information Transactions Act*, American Bar Association (2002) <[http://www.abanet.org/ucita/report\\_on\\_ucita.pdf](http://www.abanet.org/ucita/report_on_ucita.pdf)> at 15 November 2002. For subsequent developments see Kunze, above n 69.

'portable trade secret' provisions might, on these proposals, vary depending on the category of trade secrets. In common, however, would be a guaranteed lead time against reverse engineering granted in exchange for a system permitting compulsory licensing if contractual terms could not be agreed.<sup>75</sup> A register and minimal disclosure would thus be needed. The proposals were widely discussed by academics. But they were also criticised as inevitably heavy-handed and likely to produce administrative difficulties.<sup>76</sup> In general, also, it appeared there was no consensus even among academics who accepted that a problem existed as to the appropriate basis for any legislative reform. (For instance, an alternative proposal was made by Dennis Karjala for a more general 'misappropriation' doctrine, following the civil law lead in relying on unfair competition laws to fill the gaps in the mainstream intellectual property systems.)<sup>77</sup> Finally, although less fully articulated, there appears to have been a simple concern in some quarters that the prospect of easy compulsory licensing would close off prospects of a contractual solution.<sup>78</sup> Law reform did not follow these proposals.

For different reasons little has come of a separate suggestion that trade secret protection could be dealt with essentially as a matter of contract.<sup>79</sup> As will be argued below, contract should have a more central role in the matrix of trade secret protection. But to insist that a contract should exist ignores, among other things, the many kinds of transaction costs that may lie in the way of efficient and fair bargaining, even in a highly connected world.<sup>80</sup> These include the simple strategic 'cost' for a would-be user of assessing the value of information to be contracted about before knowing the information, and for an owner in disclosing information that once known no longer has the special value associated with being secret. (Solving the 'information paradox' may provide the ultimate explanation for the equitable, tortious or sui generis breach of confidence doctrine's application to cases where confidential information is imparted and

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75 The system, as proposed, would provide a regime of 'portable trade secrets', requiring limited disclosure and a register of trade secrets in exchange for a guaranteed lead time protection for a prescribed term (to be tailored to the particular category of secret) and a standardised system of compulsory licenses for users: see Reichmann above n 42, 2519 ff; Samuelson et al, above n 42, 2340 ff.

76 See, eg, (although not entirely unsympathetic to some aspects of the proposals — in particular the protection offered to would be users), Wendy Gordon, 'Assertive Modesty: An Economics of Intangibles' (1994) 94 *Columbia Law Review* 2579, 2584 ff — pointing out that industry-consumer consensus on appropriate terms is unlikely to be achieved and identifying difficulties in determining an appropriate blocking time.

77 Dennis Karjala, 'Misappropriation as A Third Intellectual Property Paradigm' (1994) 94 *Columbia Law Review* 2594.

78 See Jane Ginsburg in commenting on copyright law's superiority in inter alia, leaving compulsory licensing as a matter of last resort: Jane Ginsburg, 'Four Reasons and a Paradox: The Manifest Superiority of Copyright Over *Sui Generis* Protection of Computer Software' (1994) 94 *Columbia Law Review* 2559, 2565.

79 Robert Bone, 'A New Look at Trade Secret Law: Doctrine in Search of Justification' (1998) 86 *California Law Review* 241 (arguing the principle justification for protection lies with contract).

80 For an instructive treatment, see Mark Lemley, 'The Economics of Improvement in Intellectual Property Law' (1997) 75 *Texas Law Review* 989, 1054–8 (pointing out that there are many barriers to contracting for derivative innovation even in the age of Internet communications).

received in confidence.)<sup>81</sup> And even Robert Bone, who made the proposal preferring contractual protection, acknowledged that violation of an ‘independent norm’ might give rise to rights in tort.<sup>82</sup> Nevertheless, the proposal usefully suggests a central basis for a more viable trade secret law.

#### IV TOWARDS PROTECTION BASED AROUND PROPERTY AND CONTRACT

The above difficulties notwithstanding, there are reasons to think the future of trade secret law may still lie with property and contract. Under this scenario the non-contractual trade secret misappropriation doctrine would not disappear and may even become stronger. But it would more clearly be identified as operating in the absence of a legally effective contract. Its operation would be supplementary. And instead of the tortious, equitable or *sui generis* doctrine being the benchmark for assessing the ‘reasonableness’ of a contractual confidentiality provision, contractual practices may be looked to as exemplars of the hypothetical contract that the misappropriation doctrine represents.<sup>83</sup> Thus, even the inevitability of a full reverse engineering exception may come into question, *to the extent* practices of contracting for more restricted freedom become commonly accepted as necessary protection of a trade secret owner’s interests.<sup>84</sup>

There are several reasons to think this future will emerge. To begin with, the fact that developed practices of contracting exist, notwithstanding the uncertain degree of legal support, suggests this issue will not go away.<sup>85</sup> Further, that these contracts assume there is something to contract *about* implies there is already a perception in the market that property rights are involved, at least in the sense of

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81 Cf with respect to the obligation asserted in *Lac Minerals Ltd v International Corona Resources Ltd* [1989] 2 SCR 574 (although interestingly making her analysis the focus for an argument for a fiduciary obligation rather than the confidentiality obligation there found): Gillian Hadfield, ‘An Incomplete Contracting Perspective on Fiduciary Duty’ (1997) 28 *Canadian Business Law Journal* 141.

82 Bone, above n 79, 298–9

83 Cf the hypothetical contract based on a Rawlsian analysis (of what would be agreed behind the veil of ignorance) that Friedman, Landes and Posner put forward above n 47 ff. Hypothetical contract reasoning is consistent with the economic view that a non-contractual obligation should effectively mirror what parties would have contracted for under ideal bargaining circumstances: see, for instance (and famously), Ronald Coase, ‘The Problem of Social Cost’ (1960) 3 *Journal of Law and Economics* 1. The difference is that I contemplate a different hypothetical contract emerging from that envisaged by Friedman, Landes and Posner.

84 Courts might still wish to maintain some freedom to reverse engineer even when actual contracts would not commonly provide for it — for instance, in order to penalise and control uncooperative strategic behavior: see further below nn 104–5. But the use for such purposes could be expected to be limited if the social consensus supports a general policy of freedom of contract.

85 Cf William Fisher, ‘Property and Contract on the Internet’ (1998) 73 *Chicago-Kent Law Review* 1203, suggesting if anything, the practices will become more widespread.

something that can be traded in the market.<sup>86</sup> This at least can be acknowledged with little risk of radical legal implications. As Kevin Gray has observed, a 'property right' need not signify very much when it comes to determining the scope of obligations imposed on others:<sup>87</sup>

The concept of excludability does not, of course, resolve entirely the justice in holdings; it merely demarcates the categories of resource in which it is possible to claim 'property' ... [T]he precise allocation of 'property' in excludable resources is left to be determined — is indeed constantly formulated and reformulated — by various kinds of social and moral consensus over legitimate modes of acquisition and the relative priority of competing claims.<sup>88</sup>

The statement is especially true for intellectual property. An intellectual property right is by its very nature an ephemeral right. It does not prevent independent development of the same information by another; only the patent monopoly does that fully. Nor does it entail any absolute right to exclude. It may include the right to exclude to the extent this is within the owner's control (the right to fence — including, for instance, by technological measures — could be termed an incident of property).<sup>89</sup> It may also entail a presumption against interference. But it does not determine when the law can be invoked to coercively control the conduct of others who would wish to have access to the resource. In fact, the standards for obtaining a property right may be set low<sup>90</sup> — as with 'trade secrets' where the thresholds of secrecy (non-public domain status) and commercial value are not particularly demanding.<sup>91</sup> In these cases contract, supplemented by tort or equity or sui generis rights, must play a larger role in determining and controlling trade secret misuse.

In addition, principles of freedom of property and contract are supported by conventional efficiency and liberal theories and accord generally with social norms that, outside the intellectual property context, have seen the private

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86 This is fundamental to the Coasean economic conception of 'property' (a property right viewed as simply an entitlement that can be transacted about, either by contract or, if transaction costs preclude, hypothetical contract): see Ronald Coase, 'The Federal Communications Commission' (1959) 2 *Journal of Law and Economics* 1, 18–19 especially and Ronald Coase, 'The Problem of Social Cost', above n 83.

87 Kevin Gray, 'Property In Thin Air' (1991) 50 *Cambridge Law Journal* 252.

88 Ibid 295.

89 Although this was not recognised by the Australian High Court in the early case of *Victoria Park Racing and Recreation Grounds Co Ltd v Taylor* (1937) 58 CLR 479, where the plaintiff's claim for a property right in the 'spectacle' of races conducted on its ground was rejected, notwithstanding the plaintiff's entitlement to build a higher fence in order to prevent a neighbour viewing and broadcasting its races. As subsequently pointed out, it was unfortunate the claim was made as a privacy not a trade secrecy claim: *ABC v Lenah Game Meats Pty Ltd* (2001) 185 ALR 1, 31–2 (Gummow and Hayne JJ).

90 Cf Harold Demsetz, 'Toward a Theory of Property Rights' (1967) 57 *American Economic Review* 347, referring to property rights as simply developing to internalise externalities when the gains of internalisation become larger than the costs of internalisation. See however Thomas Merrill and Henry Smith, 'See What Happened to Property in Law and Economics' (2001) 111 *Yale Law Journal* 357, arguing that the standards should always be high. But such arguments overstate the implications of granting a property right.

91 See, for instance, *Saltman Engineering Co Ltd v Campbell Engineering Co Ltd* (1948) 65 RPC 203, 215 (Lord Greene MR) (information must not be 'public property and public knowledge'); American Law Institute, *Restatement of the Law Third: Unfair Competition* § 39, comment f (1995) (secrecy 'sufficient to confer an actual or potential economic advantage ...' is required).



ordering paradigm come to dominate over command and control.<sup>92</sup> Property rights are seen as serving economic goals by fostering investments of resources as well as efficient use of resources through trading (contracting) in the market place.<sup>93</sup> Contract rights in turn are seen as supporting efficient trades in which the free and informed consent of parties provides a good indicator of their mutual benefit; while liberal goals are seen as supported by a system based on promoting cooperative decision-making rather than paternalistic fiat.<sup>94</sup> There is already some indication that such norms are being imported into the intellectual property domain. Thus contractual compliance was endorsed as 'honest commercial practice' for trade secret acquisition and use in a recent international convention, the *Agreement on Trade-Related Aspects of Intellectual Property Rights* ('TRIPs').<sup>95</sup> To the extent this reflects an international consensus, it may be taken as indicating the basis for an emerging consensus at the domestic level as well.<sup>96</sup>

Further, some of the more theoretically-based arguments for different treatment of intellectual property are also undergoing a period of reassessment. The classical view was, and to some extent still is, that intellectual property rights must necessarily mediate between conflicting interests of information owners and would-be users.<sup>97</sup> Thus it could be readily assumed that such rights should be established and their limits set by disinterested third parties. But now an emerging body of new information economics posits that information producers have rational interests in ensuring that all those who would wish to access information can do so through voluntary cooperative arrangements, the terms of which may vary depending on the nature of the use and even the user. In

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92 For a collaborative relationship that can exist between law and social norms see Robert Cooter, 'Expressive Law and Economics' (1998) 27 *Journal of Legal Studies* 585. The same point is made by Dam, above n 4, 412. See also, generally, Lessig, above n 4.

93 It is standard economics that information is a 'public good' in the sense that exclusion of second comers is difficult (without legal support). Property rights provide a mechanism to facilitate exclusion so that 'the initial investment may ... be undertaken': Janusz Ordover and William Baumol, 'Antitrust Policy and High-Technology Industries' (1988) 4 *Oxford Review of Economic Policy* 13, 14.

94 See, for general consistency of freedom of contract with efficient and/or liberal social norms, Michael Trebilcock, *The Limits of Freedom of Contract* (1993).

95 *Agreement on Trade-Related Aspects of Intellectual Property Rights*, Annex 1C to *Final Act Embodying the Results of the Uruguay Round of Multinational Trade Agreements*, opened for signature 15 April 1994, 1869 UNTS 299, art 39(2) (entered into force 1 January 1995), (states to provide effective legal protection to undisclosed information, their acquisition and use to be in accordance with 'honest commercial practice') and TRIPs n 10, identifying conduct that is 'contrary to honest commercial practice' as including breach of contract and breach of confidence. Note that reverse engineering is omitted from the list of proscribed practices in TRIPs n 10 but neither is it specifically exempted. In fact it seems that no agreement could be reached about its proper status in the TRIPs negotiations notwithstanding US efforts: Rudolph Krasser, 'The Protection of Trade Secrets in the TRIPs Agreement' in Friedrich-Karl Beier and Gerhard Schricker (eds), *From GATT to TRIPs — The Agreement on Trade-Related Aspects of Intellectual Property Rights* (1996) 216.

96 As well as a legal basis for responding to the assumed immutable character of the United States constitutional preemption doctrine, as argued by Lao, above n 4, at 1683–5.

97 See legal authorities collected in William Fisher's excellent introduction, 'Theories of Intellectual Property' in Stephen Munzer (ed), *New Essays in the Legal and Political Theory of Property* (2001) 168. Economists also traditionally took this line: see, for instance, Ordover and Baumol, above n 93, (dissemination function must yield to exclusion function).

fact, the non-rivalrous character of information — that it is not used up when it is used — makes such tailored contracting mechanisms uniquely possible.<sup>98</sup> While such theories are by no means fully accepted, newer critiques appear to be less concerned with outright rejection than amelioration for real world circumstances of transaction costs, limited endowments, limited rationality and so on.<sup>99</sup> In essence, such theories give some extra credence to the notion that trade secret contracts can under ideal bargaining circumstances foster a cooperation that is just and efficient on both sides.

Finally, for those concerned about the prospect of untrammelled freedom of contract there are several answers. Contract law provides a medium for testing the efficiency as well as ‘honesty’ of contracts. Its doctrines appropriately specify how a contract must be made as well as the grounds on which it may be set aside, provided that their economic-liberal rationales are clearly understood as setting certain limits on their application.<sup>100</sup> Even the restraint of trade doctrine, properly tailored, has one useful purpose. If all it does is ensure the natural term of trade secret protection is the life of the trade secret, the length of time before it fully reaches the public domain, it avoids the illogical and anomalous situation of a contract continuing to operate when its basis has been destroyed.<sup>101</sup> Free speech norms can also be accommodated within a general public policy exception to contract enforcement, giving this an equivalent function in the trade secret domain as the public interest exception to the

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98 See generally Carl Shapiro and Hal Varian, *Information Rules: A Strategic Guide to the Network Economy* (1999). For a particular application to shrink-wrap licence terms see also *ProCD v Zeidenberg*, 86 F 3d 1447 (7<sup>th</sup> Cir, 1996) 1149–50 (Easterbrook J) (consumers benefit if ProCD charges more to commercial users because then their price can be kept low — maintaining a high level of access. To make this work, however, those who agree on cheaper price terms should therefore be bound to restrictions that go with them. Arbitrage must be avoided.).

99 See, eg, Lemley, above n 80, (pointing out residual transaction costs to contracting, even in the age of Internet communications); Lydia Pallas Loren, ‘Redefining the Market Failure Approach to Fair Use in an Era of Copyright Permission Systems’ (1997) 5 *Journal of Intellectual Property Law* 8 (arguing the endowment problem is not solved by a pay-for-use mechanism). See also Wendy Gordon, ‘Excuse and Justification in the Law of Fair Use: Commodification and Market Perspectives’ in Niva Elkin-Koren and Neil Netanel (eds), *The Commodification of Information; Political, Social, and Cultural Ramifications* (forthcoming 2002) 147 (pay for use approaches can fail to serve community needs and the law needs to consider this).

100 The real nature of agreement tested under contractual doctrines of offer and acceptance, notice of terms, and vitiating doctrines of duress, misrepresentation, unconscionability (properly confined to a mainly procedural focus) and the like: see further, for an insightful treatment, Trebilcock, above n 94.

101 The High Court’s precise reason for relying on the doctrine in *Maggbury v Hafele* (2001) 185 ALR 152, 164–5, referring to UK authorities that a trade secrecy contract should not be construed to continue after the information had been published, for otherwise ‘the result is that there is no longer any subject matter upon which the agreement could operate’: *O Mustad & Son v Dosen* (Unreported, UK Court of Appeal, Atkin LJ, 18 June 1928), quoted by Roskill J in *Cranleigh Precision Engineering Ltd v Bryant* [1965] 1 WLR 1293 at 1314–15) to conclude an express term to the same effect would be in restraint of trade.

tortious, equitable or sui generis doctrine.<sup>102</sup> Indeed, as the possibilities for using contract to control trade secret use expand, a public policy exception must inevitably become an important and central basis for balancing essentially commercial interests against interests in fostering free public discussion and debate — especially where constitutional interests are concerned. In addition, because contract law's remedies provide a flexible mechanism for fostering use (in the same way as the remedies for breach of the tortious or equitable or sui generis obligation can operate in a flexible way), courts have at their disposal a last-resort effective compulsory licensing regime.<sup>103</sup> Courts might still occasionally prefer not to give a remedy for breach of contract, for instance in cases where a trade secret owner's conduct was so strategically self-interested and against general efficiency as to warrant a penalty.<sup>104</sup> This might suggest some scope for a contract-immune reverse engineering exception, although of a limited, perhaps discretionary, nature.<sup>105</sup> Competition law also has an important yet to be fully explored role in cases where trade secret owners for various reasons are not subject to the discipline of the market.<sup>106</sup> Finally, it may be noted that a system based around private property may never obviate the need for broader collective responses to social problems — including ensuring a minimal level of access to essential intellectual resources. Here taxation and social welfare/investment policies may simply be the best available options.

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- 102 Although the US Supreme Court may have worryingly implied that the first amendment would not supersede contractual rights and obligations in *Cohen v Cowles Media Co*, 501 US 663, 668 (1991) (cf *DVD v Bunner*, 93 Cal App 4<sup>th</sup> 648, 663 (2001) (Premo J)) the issue is not closed. More generally, public policy has been a basis for overriding contracts where the public interest is concerned: cf Lessig, above n 4, 530. In the Australian context see *A v Hayden* (1984) 156 CLR 532 (public policy exception to contract enforcement given a similar function to public interest exception to equitable breach of confidence doctrine).
- 103 For the efficiency of remedies to achieve second-order welfare outcomes, see generally Guido Calabresi and A Douglas Melamed, 'Property Rules, Liability Rules and Inalienability: One View of the Cathedral' (1972) 85 *Harvard Law Review* 1089 ('proprietary remedies' such as injunction or specific performance permit parties to negotiate for their own arrangements; but 'liability rules' — ie monetary remedies — may also be used to achieve efficient results, especially where transaction costs to bargaining are high). For the insight that monetary remedies can in effect operate as a compulsory intellectual property licence, see Karjala, above n 77.
- 104 On the efficiency of penalties to deter inefficient strategic behavior (designed to benefit one party at the expense of another where cooperation would generally be efficient), see Ian Ayres and Robert Gertner, 'Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules' (1989) 99 *Yale Law Journal* 87.
- 105 Possibly Jacob J would have characterised the plaintiff's conduct (in failing to reach 'sensible terms' with the defendant) in *Mars v Teknowledge* [2000] FSR 138 in this way, had the defence been so framed.
- 106 For a brief but useful discussion, see Elizabeth Miller, 'Antitrust Restrictions on Trade Secret Licensing: A Legal Review and Economic Analysis' (1989) 52 *Law and Contemporary Problems* 183. In fact competition law has already had a quite significant, if not always acknowledged, role in regulating the behaviors of trade secret owners in cases where the discipline of the market is insufficient: as, for instance, in *United States v Microsoft Corp*, 87 F Supp 2d 30 (2000). There, Microsoft's trade secrets as much as its copyright and general business expertise contributed to its monopoly position in the market for operating systems, exploited to inhibit the development of Internet based technologies. Its conduct was ultimately held to breach the US *Sherman Antitrust Act of 1890*, 15 USC §§ 1–7 (2001); approved in part on appeal *United States v Microsoft Corp*, 253 F 3d 34 (2001).

## V CONCLUSIONS

In the above brief comments I have tried to show that, far from having a marginal future, trade secret law may yet emerge as a powerful legal force in the 21<sup>st</sup> century. Current commercial practice, social norms favouring private ordering over command and control, and the balances found within contract law (as well as other laws that impact from outside) provide some reason to think the future of trade secret law will lie with property and contract. Compared to the apparent alternatives, a trade secret system based on property and contract, supplemented by tort or wrong, seems to offer distinct advantages.