

CRITIQUE AND COMMENT

‘STORYLINE PATENTS’: ARE PLOTS PATENTABLE?

BEN MCENIERY*

[The most interesting questions that arise in patent law are the ones that test the boundaries of patentable subject matter. One of those questions has been put forward recently in the United States in an argument in favour of patenting the plots of fictional stories. United States attorney Andrew F Knight has claimed that storylines are patentable subject matter and should be recognised as such. What he claims is patentable is not the copyrightable expression of a written story or even a written outline of a plot but the underlying plot of a story itself. The commercial application of ‘storyline patents’, as he describes them, is said to be their exclusive use in books and movies. This article analyses the claims made and argues that storylines are not patentable subject matter under Australian law. It also contends that policy considerations, as well as the very nature of creative works, weigh against recognition of ‘storyline patents’.]

CONTENTS

I	The Proposed ‘Storyline Patent’	292
II	The Arguments in Favour of Storyline Patents	297
III	The Patentability of Storylines under Australian Law	299
	A The Statutory Test for Patentability	300
	B Patentable Subject Matter: The ‘Manner of Manufacture’ Requirement... 301	
	1 Plots Fall within the ‘Fine Arts’	303
	2 Plots Are Merely Abstract Ideas.....	304
	3 Plots Lack a Physical Element, Transformation or Effect	305
	4 Plots Fall outside the ‘Technological Arts’	308
	5 Plots Are Therefore Not Patentable Subject Matter	311
	C Novelty and Inventive Step.....	311
	D Utility and the Incomplete Nature of the Invention.....	313
IV	Policy: Should Storylines Be Patentable?	314
V	Conclusion.....	318

I THE PROPOSED ‘STORYLINE PATENT’

In 2003, Andrew F Knight submitted the first of several patent applications to the United States Patent and Trademark Office claiming patent protection in respect of a number of fictional story plots or, to use his term, ‘storylines’.¹ His

* BA, LLB (Hons) (UQ), LLM (QUT); Lecturer, Faculty of Law, Queensland University of Technology; admitted to practice as a solicitor before the High Court of Australia and the Supreme Court of Queensland. Email <b.mcenery@qut.edu.au>.

¹ Andrew F Knight, ‘A Patently Novel Plot: Fiction, Information, and Patents in the 21st Century’ (2006) 47 *IDEA* 203, 204. Knight cites four applications, each of which is entitled ‘Process of Relaying a Story Having a Unique Plot’: *US Patent Application 20050244804* (filed 28 Novem-

theory is that storylines are patentable subject matter and should be recognised as such.²

According to Knight, a storyline is an invention.³ A 'storyline patent' would provide monopoly protection over the useful application of the underlying plot of a fictional story that is both 'novel' and 'non-obvious'.⁴ What is claimed is not the copyrightable expression in material form of a written story or even the copyrightable expression of a written outline of a plot, but a method of relaying the underlying plot of a story itself.⁵ Knight makes method claims for both plot alone — in the form of 'the process necessary to implement the unique fictional plot in an entertainment medium'⁶ — and for plot embedded in a physical medium.⁷

A storyline is an *invention* that may be embodied in a useful, functional method for relaying that storyline, or in a tangible medium containing that storyline. Patent protection for storyline methods or storyline articles of manufacture is the next logical legal step in furtherance of the stated aims of patent law.⁸

Knight argues that there is insufficient intellectual property protection for writers who develop new and unique story plots. He contends that an intellectual property regime that allows an author to retell another writer's tale pays insufficient regard to the 'spark of ingenuity'⁹ and 'flash of inspiration'¹⁰ that gives rise to innovative storylines and that the patent system should reward creators of storylines in the same way that it currently rewards inventors of new technologies.¹¹ In support of his argument, Knight cites Hollywood movies recycling what he describes as 'hackneyed plots' as evidence of a need for economic rewards for 'inventors' of new plots.¹²

Knight's argument in favour of the patentability of storylines is based upon analogy. He draws analogies between inventions that are clearly patentable and storylines, and then asks why a creative and new storyline should be treated differently from inventions and denied patent protection. For example, he argues that if computer software contained on a disk can be patentable subject matter, then a storyline recorded on a DVD should not be treated differently.¹³

ber 2003); *US Patent Application 20050255437* (filed 17 May 2004); *US Patent Application 20050272013* (filed 7 June 2004); *US Patent Application 20050282140* (filed 17 June 2004).

² See Andrew F Knight, 'A Potentially New IP: Storyline Patents' (2004) 86 *Journal of the Patent and Trademark Office Society* 859; Knight, 'A Patently Novel Plot', above n 1.

³ Knight, 'A Potentially New IP', above n 2, 873.

⁴ The requirement of 'novelty' is found in 35 USC § 102 and the requirement of 'non-obviousness' is found in 35 USC § 103.

⁵ Knight, 'A Potentially New IP', above n 2, 859.

⁶ *Ibid.*

⁷ *Ibid* 868–70.

⁸ *Ibid* 873 (emphasis in original).

⁹ *Ibid* 872.

¹⁰ *Ibid* 871–2.

¹¹ *Ibid* 871–7.

¹² *Ibid* 873.

¹³ *Ibid* 869.

The object of storyline patents is to provide both copyright and patent protection to forms of creative literary works, in a similar fashion to the way computer software is amenable to both copyright and patent protection.¹⁴ A patent confers exclusive rights to exploit a storyline,¹⁵ and the value of a patent lies in the advantages that patent law holds over copyright protection. Copyright law will only protect the particular expression of a storyline that is in material form, not the underlying plot itself.¹⁶ Even then, copyright in a storyline plot would only be infringed where there is a taking of the storyline that amounts to copying.¹⁷ This is the essence of the idea-expression dichotomy. For these reasons, the law of copyright is not broad enough to give authors of storylines the sort of intellectual property protection that Knight suggests they deserve.

Knight highlights the different treatment the law affords authors who write whole stories and authors whose activities are limited to creating unique and captivating plots:

Currently, a writer may receive free, comprehensive, and automatic copyright protection on anything she writes. If her skill consists primarily of expressing old, stale concepts in new, creative, exciting ways, then she will benefit from copyright protection. However, if her skill consists primarily of inventing new and unique broad concepts, then copyright protection will only protect one of uncountably many possible expressions of those new and unique concepts.¹⁸

Accordingly, his argument is that a remedy should be provided to authors who have had their plot ideas copied by another writer in a manner that does not involve an infringement of copyright. He contends that patent law is the appropriate vehicle to provide that remedy. Knight describes the benefits to a patent holder in the following way:

a patent on a particular storyline method or storyline-containing article or manufacture would cover every embodiment of the claimed invention. Every possible expression of the storyline — whether involving five characters or ten, whether set in Amsterdam or Chicago, whether told in the first person by a Nigerian heroine or in the third person by a Chinese hero, whether embodied in a novel, a script, a movie, an advertisement, a television program, or a radio show — would require infringement of the claimed method or article of manufacture. Again, each different expression of the underlying storyline may be independently copyable, but every expression would be covered by the patent. Just as a patent granted on a software method or software-containing medium effectively covers the underlying software itself, so a patent granted on a storyline

¹⁴ In Australia, a 'computer program' is protected by copyright law by virtue of it being a 'literary work'; a 'computer program' includes both object code and source code: *Copyright Act 1968* (Cth) ss 10(1), 21(5), 31. In addition, a patent may be awarded in respect of a computer software program when the requirements for patentability in the *Patents Act 1990* (Cth) have been satisfied: see below n 103.

¹⁵ *Patents Act 1990* (Cth) s 13.

¹⁶ *Copyright Act 1968* (Cth) s 31(1).

¹⁷ Copyright protection guards against the reproduction of a work in material form, but it does not prevent independent creation: *Powerflex Services Pty Ltd v Data Access Corporation* [No 2] (1997) 75 FCR 108, 126 (Black CJ, Hill and Sundberg JJ).

¹⁸ Knight, 'A Potentially New IP', above n 2, 874, citing *US Patent Application 20050244804* (filed 28 November 2003).

method or storyline-containing article of manufacture effectively covers the underlying storyline itself.¹⁹

A storyline patent would therefore be infringed when reproduced in any way. Knight notes that the proposed storyline patents are of broad scope, so that:

A director infringes it at least when she makes a movie implementing the implicitly claimed storyline (and possibly at other times, such as a showing of the movie); an actor infringes it at least when he plays his part as the first character; an owner of a movie theater infringes it at least when he shows the movie; the consumer infringes it at least when she plays a DVD containing the movie; and so forth.²⁰

An example of the sort of protection Knight argues for was that sought by, but not afforded to, Leon Arden in the case of *Arden v Columbia Pictures Industries Inc.*²¹ Arden brought a claim for infringement of copyright in his published novel, *One Fine Day*,²² which involved a man living through the same day over and over.²³ Arden alleged that the essential elements of his novel, including 'the plot, mood, characters, pace, setting, and sequence of events',²⁴ were copied and appeared in the film *Groundhog Day*.²⁵ Although Chin DJ acknowledged that the novel and the film were based on the same idea, he held that the idea had been expressed differently in the novel and the film and that the similarities between the works related only to 'ideas, concepts, or abstractions.'²⁶ Chin DJ's opinion further noted that as 'copyright law only protects the expression of ideas, rather than ideas themselves ... the idea of a repeating day, even if first conceived by [the] plaintiff,' does not fall within the scope of copyright protection.²⁷

Many of Knight's motivations are set out on his website.²⁸ The most prominent motivation appears to be taking advantage of the most lucrative means of exploiting a storyline patent — the creation of a unique movie plot.²⁹ On his website, Knight identifies several movie plots that he believes would potentially have been patentable prior to their public release, namely: *Memento* (which Knight uses as a working example), *The Thirteenth Floor*, *Being John Malkovich*, *The Butterfly Effect*, *The Game*, *Fight Club*, *The Matrix*, *Total Recall*, *The Truman Show*, *Minority Report*, *The Village*, *Groundhog Day*, and *Eternal Sunshine of the Spotless Mind*.³⁰

¹⁹ Knight, 'A Potentially New IP', above n 2, 870 (emphasis in original).

²⁰ *Ibid* 868.

²¹ 908 F Supp 1248 (SDNY, 1995). This example was used in Anu R Sawkar, 'Are Storylines Patentable? Testing the Boundaries of Patentable Subject Matter' (2008) 76 *Fordham Law Review* 3001.

²² Leon Arden, *One Fine Day* (1981).

²³ *Arden v Columbia Pictures Industries Inc*, 908 F Supp 1248, 1249 (Chin DJ) (SDNY, 1995).

²⁴ *Ibid*.

²⁵ Directed by Harold Ramis, Columbia Pictures, 1993.

²⁶ *Arden v Columbia Pictures Industries Inc*, 908 F Supp 1248, 1249–50 (SDNY, 1995).

²⁷ *Ibid* 1259.

²⁸ See Knight and Associates, *Storyline Patents and Plot Patents* (2004) <<http://www.plotpatents.com>>.

²⁹ Knight and Associates, *Applications* (2004) <<http://www.plotpatents.com/applications.htm>>.

³⁰ *Ibid*.

Given the relatively recent expansion of patent protection into the realms of computer programming and business methods,³¹ it is not surprising that someone would seek to further stretch the bounds of patent law to encompass fields within the 'fine arts' such as literature, the performing arts and entertainment. These attempts to patent plot go far beyond the devices of mechanical, industrial and business utility, which are currently accepted as patentable subject matter. They would pose a serious threat to our cultural advancement if successful.

At first blush it appears that storylines are not the type of innovation that patent law is designed to reward nor appropriate subject matter for the grant of the monopoly rights that attach to a patent. Instead, it appears that this subject matter should remain solely within the domain of copyright, even if that means only limited, and possibly ineffective, protection is available. The consequence of this is that if an alleged infringer 'steals' a plot idea but does not infringe copyright in doing so, they will not have done something the law considers to be a wrong.³²

Storyline patents are compelling not only due to their potential to erode the public domain, integral to the creation of new literature, but also because they represent a new wave of innovative challenges to the patent system. They seek to manipulate the patent system's connection to its historical roots in supporting new 'manufactures', which traditionally provided an incentive for the creation of new industrial devices and methods.³³

The object of this article is to investigate whether storylines are, and whether they ought to be, patentable. Part II outlines Knight's arguments in favour of the patentability of storylines. Part III addresses the patentability of storylines according to current Australian law. It concludes that there are three grounds upon which patents of this type would likely fail: they are not patentable subject matter; they either lack novelty or the requisite degree of inventiveness; and they lack utility as they cannot be sufficiently described so as to enable a person skilled in the art to reproduce the invention in order to create a useful product. Part IV considers the policy issues involved, finding that storyline patents would be contrary to the public interest. Part V concludes that the attempt to patent plot reveals a misunderstanding of the nature of creative works, the creative process and the objects of patent law.

³¹ See, eg, *Diamond v Diehr*, 450 US 175 (1981); *State Street Bank & Trust Co v Signature Financial Group Inc*, 149 F 3d 1368 (Fed Cir, 1998); *AT&T Corporation v Excel Communications Inc*, 172 F 3d 1352 (Fed Cir, 1999); *Welcome Real-Time SA v Catuity Inc* (2001) 113 FCR 110; *CCOM v Jiejing* (1994) 51 FCR 260.

³² *Powerflex Services Pty Ltd v Data Access Corporation [No 2]* (1997) 75 FCR 108.

³³ For an examination of the history and traditional objects of the patent system, see E Wyndham Hulme, 'The History of the Patent System under the Prerogative and at Common Law' (1896) 12 *Law Quarterly Review* 141; E Wyndham Hulme, 'The History of the Patent System under the Prerogative and at Common Law: A Sequel' (1900) 16 *Law Quarterly Review* 44; E Wyndham Hulme, 'On the History of Patent Law in the Seventeenth and Eighteenth Centuries' (1902) 18 *Law Quarterly Review* 280; P J Federico, 'Origin and Early History of Patents' (1929) 11 *Journal of the Patent Office Society* 292; Paul E Schaafsma, 'An Economic Overview of Patents' (1997) 79 *Journal of the Patent and Trademark Office Society* 241.

II THE ARGUMENTS IN FAVOUR OF STORYLINE PATENTS

As Knight is a patent attorney from the United States, his arguments in support of storylines being patentable subject matter are directed to United States law. He regards the legal analysis of storyline patent claims as straightforward. Knight focuses on the principle that patentable subject matter includes 'anything under the sun that is made by man'³⁴ other than subject matter that falls within the stated exceptions identified in the case law, being the 'laws of nature, natural phenomena, and abstract ideas'³⁵ that do not produce a 'useful, concrete, and tangible result'.³⁶ His argument is that storyline patent claims do not fall within the stated exceptions to patentable subject matter, do produce a 'useful, concrete, and tangible result' and therefore must be patentable subject matter. The fact that the method is one for producing entertainment, according to Knight, does not render it unpatentable.³⁷

Further, Knight asserts, relying on the Board of Patent Appeals and Interferences decision in *Ex parte Lundgren*,³⁸ that patent law does not contain a 'technological arts' requirement and that, accordingly, his storyline patent claims do not need to amount to a technological innovation in order to be patentable.³⁹ Finally, he says that the question of patentability does not hinge on whether an alleged invention is a form of entertainment or how an entertaining device or method entertains.⁴⁰

After asserting that storylines are patentable subject matter, Knight fails to pay much attention to the issues of whether a storyline method claim could pass the tests of 'novelty' and 'non-obviousness'.⁴¹ It is of particular concern that Knight does not adequately respond to the argument that storylines are so plentiful and exhaustive that no story is really new and non-obvious. He merely says that new stories are analogous to new types of pumps and we see new types of pumps

³⁴ Knight, 'A Potentially New IP', above n 2, 859, citing *Diamond v Chakrabarty*, 447 US 303, 309 (Burger CJ for Burger CJ, Stewart, Blackmun, Rehnquist and Stevens JJ) (1980). Knight's argument is reminiscent of Maurer's in favour of broad scope of patentable subject matter: Erik S Maurer, 'An Economic Justification for a Broad Interpretation of Patentable Subject Matter' (2001) 95 *Northwestern University Law Review* 1057.

³⁵ Knight, 'A Potentially New IP', above n 2, 860, citing *Diamond v Diehr*, 450 US 175, 185 (Rehnquist J for Burger CJ, Stewart, White, Powell and Rehnquist JJ) (1981).

³⁶ Knight, 'A Potentially New IP', above n 2, 862, citing *State Street Bank & Trust Co v Signature Financial Group Inc*, 149 F 3d 1368, 1375 (Rich J for Rich, Plager and Bryson JJ) (Fed Cir, 1998), cert denied 119 S Ct 851 (1999). *State Street Bank & Trust Co v Signature Financial Group Inc* was in turn citing *Re Alappat*, 33 F 3d 1526, 1544 (Rich J for Rich, Pauline Newman, Michel, Plager, Laurie and Rader JJ) (Fed Cir, 1994). Since Knight wrote, this ten-year-old formula for determining patent-eligible subject matter — that an invention must produce a 'useful, concrete, and tangible result' — has been overturned by the United States Court of Appeals for the Federal Circuit, which described the test as being 'insufficient to determine whether a claim is patent-eligible': *Re Bilski*, 545 F 3d 943, 959 (Michel CJ for Michel CJ, Lourie, Schall, Bryson, Gajarsa, Linn, Dyk, Prost and Moore JJ) (Fed Cir, 2008).

³⁷ Knight, 'A Potentially New IP', above n 2, 869.

³⁸ 76 USPQ 2d (BNA) 1385 (Bd Pat App & Int, 2005) (designated precedential opinion).

³⁹ Knight, 'A Patently Novel Plot', above n 1, 207–12. This argument is made only in Knight's 2006 article, which appears to have been written in response to criticism of his 2004 article.

⁴⁰ Knight, 'A Patently Novel Plot', above n 1, 210–12.

⁴¹ *Ibid* 212.

evolving all the time,⁴² and that it must be impossible to contend that no-one in the world will ever conceive of a distinct plot that satisfies the tests of novelty and non-obviousness.⁴³

The plots in question are cast as method claims, which are one type of patentable subject matter permitted under United States law.⁴⁴ Each plot is described as a series of steps that, if followed, is said to produce a useful result in the form of valuable entertainment. In addition, Knight argues that plots, when embodied in a particular physical medium, are patentable as articles of manufacture (another type of patentable subject matter permitted under United States law).⁴⁵

Knight puts forward the argument that storylines are analogous to computer software. He says that despite the existence of the judicially-created printed matter doctrine, which excludes printed matter per se from patent protection on the basis that intellectual property protection is already afforded under copyright law,⁴⁶ patent law protects the method that software executes on a computer. By analogy Knight argues that, like software, a fictional storyline should be protected as a process.⁴⁷

Knight provides an example of a claim to a method of implementing the plot of the film, *Memento*, to produce a 'useful, concrete, and tangible result' of producing valuable entertainment:

A process of relaying a story having a unique plot, the story involving characters and having a timeline, comprising: indicating that a first character has an inability to retain long-term memories after a time in the timeline; indicating that said first character trusts notes written by said first character; indicating that said first character believes that said first character has been wronged by a perpetrator; indicating that said first character desires to perform an act of retribution against said perpetrator; indicating that said first character believes that attempting to perform said act is a futile endeavor; and indicating that said first character writes a note to said first character indicating that a second character, whom the first character believes is not the perpetrator, is the perpetrator.⁴⁸

According to Knight, the example claim 'seems to catch the essence of the movie's underlying storyline, [and] looks and feels like ... an ordinary, functional, useful method.'⁴⁹ Knight claims that any expression of the plot would

⁴² Ibid 212–13.

⁴³ Ibid.

⁴⁴ 35 USC § 101 sets out what is patentable subject matter. The provision provides for four categories of patentable subject matter: 'Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.'

⁴⁵ Knight, 'A Potentially New IP', above n 2, 867.

⁴⁶ Ibid 863–6. Knight identifies *Re Gulack*, 703 F 2d 1381, 1385 (Smith J for Baldwin and Smith JJ) (Fed Cir, 1983) and *Re Lowry*, 32 F 3d 1579, 1583 (Rader J for Rich J, Skelton SCJ and Rader J) (Fed Cir, 1994) as the judicial source of the printed matter doctrine and the United States Patent and Trademark Office, *Manual of Patent Examining Procedure* (2008) as a source for a related or identical doctrine.

⁴⁷ Knight, 'A Potentially New IP', above n 2, 860.

⁴⁸ Ibid 867, quoting *US Patent Application 20050244804* (filed 28 November 2003).

⁴⁹ Ibid 868.

infringe the storyline patent, regardless of the characters, setting or point of view of the teller and regardless of the medium of expression, whether it be a book, movie script, advertisement or television program.⁵⁰ From this example, it is clear that copyright protection is of little use, as it would be a trivial task to 'invent around' this story by taking its essential features and creating a substantially different product that followed the same or a similar sequence of events.

Knight then gives an example of what he dubs a 'storyline article claim', which is a claim to a physical article of manufacture that embodies the storyline, such as a DVD or video cassette that contains a visual recording of the storyline being played out.⁵¹ He says that this type of claim is indistinguishable from computer program claims to a data-recording medium that embodies functionally unrelated and independently patentable software.⁵²

III THE PATENTABILITY OF STORYLINES UNDER AUSTRALIAN LAW

Patents in Australia have traditionally been thought to lie within the domains of engineering and industry, applying to the manufacture of physical and mechanical devices of industrial application and the application of forces upon a physical object to change the material state of that object.⁵³ However, perceptions of the uses to which the patent system should be put changed when entrepreneurs in commerce and business began to seek the same patent protections for their innovations as had been awarded to engineers and industrialists. Given the interest in the patent system shown by entrepreneurs in commerce and business,⁵⁴ it should come as little surprise that those in the literary arts and

⁵⁰ Ibid 870.

⁵¹ Ibid 869.

⁵² Ibid.

⁵³ See Lionel Bently and Brad Sherman, *Intellectual Property Law* (2001) 310:

the image of the invention as the human intervention into nature that brings about a resulting physical change that underpins much contemporary jurisprudence, was well entrenched in British law by the mid-nineteenth century.

Robert P 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, 585:

For Thomas Jefferson and his cohorts, a piece of technology was readily identifiable: it had substance, and moving parts, and did something out in the practical world of farming or manufacturing. At the very least, for Jefferson, if you put technology in a bag and shook it, it would make some noise.

Maurer, above n 34, 1057:

When people think of patented inventions they probably think about well-tooled, oily parts that make machines run — something they can put their hands on, weigh with dead reckoning, and intuitively understand.

⁵⁴ See United States Patent and Trademark Office, *Class 705 Application Filing and Patents Issued Data* (January 2009) <<http://www.uspto.gov/web/menu/pbmethod/applicationfiling.htm>>; *Re Bilski*, 545 F 3d 943, 1004 (Mayer J) (Fed Cir, 2008); Douglas L Price, 'Assessing the Patentability of Financial Services and Products' (2004) 3 *Journal of High Technology Law* 141, 153: 'The *State Street* case has opened the floodgates on business method patents'; Peter H Kang and Kristin A Snyder, 'A Practitioner's Approach to Strategic Enforcement and Analysis of Business Method Patents in the Post-*State Street* Era' (2000) 40 *IDEA* 267, 278; Josephine Chinying Lang, 'Management of Intellectual Property Rights: Strategic Patenting' (2001) 2(1) *Journal of Intellectual Capital* 8.

entertainment sectors of the economy should seek intellectual property protection for their creations.

A *The Statutory Test for Patentability*

The test for determining whether an invention is patentable is found in s 18 of the *Patents Act 1990* (Cth). Section 18 requires that, for a standard patent, an invention must be a ‘manner of manufacture’ within the meaning of s 6 of the *Statute of Monopolies 1623*,⁵⁵ be novel and involve an inventive step, be useful, and not have been used in secret.⁵⁶ In addition to these requirements, the opening words of s 18 ‘impose a threshold requirement’ that an alleged invention must satisfy before it need be tested against the listed heads of patentability in s 18.⁵⁷ This threshold requirement of inherent patentability stems from the requirement in s 18 that an ‘invention’ be disclosed on the face of a patent application.⁵⁸ The term ‘invention’ used in s 18 is defined in sch 1 to the Act in the following way:

invention means any manner of new manufacture the subject of letters patent and grant of privilege within section 6 of the *Statute of Monopolies*, and includes an alleged invention.⁵⁹

The threshold requirement will not be met and the patent application may be refused without the need to compare it with the prior art base if, on its face, it is apparent that the invention does not differ from existing inventions or does not involve an inventive element.⁶⁰

A patent applicant must disclose the invention in a patent specification. A complete specification must ‘describe the invention fully, including the best method known to the applicant of performing the invention’.⁶¹ The specification must disclose the invention in sufficient detail and with sufficient clarity to allow

⁵⁵ 21 Jac 1, c 3.

⁵⁶ *Patents Act 1990* (Cth) s 18(1). The requirements for an innovation patent are similar, but the requirement for an inventive step is replaced by the need for an innovative step: s 18(1A). An innovation patent is a second-tier patent that is intended to provide less expensive monopoly rights for lower level or incremental inventions for a shorter period than for a standard patent. Note also that the expression ‘patentable invention’ is defined in the Dictionary in sch 1 as ‘an invention of the kind mentioned in section 18.’

⁵⁷ *NV Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655, 663–4 (Brennan, Deane and Toohey JJ).

⁵⁸ *Ibid.* At the time this case was decided the introductory words in s 18(1) read: ‘a patentable invention is an invention that ...’. This wording has subsequently been amended by the *Patents Amendment (Innovation Patents) Act 2000* (Cth) to state: ‘an invention is a patentable invention ... if ...’. It is suggested that the ‘threshold requirement’ of inventiveness remains notwithstanding this change to the wording.

⁵⁹ *Patents Act 1990* (Cth) sch 1.

⁶⁰ *NV Philips Gloeilampenfabrieken v Mirabella International Pty Ltd* (1995) 183 CLR 655, 664–6 (Brennan, Deane and Toohey JJ). Cf *Lockwood Security Products Pty Ltd v Doric Products Pty Ltd* (2004) 217 CLR 274, 291–2 (Gleeson CJ, McHugh, Gummow, Hayne and Heydon JJ). See also *Griffin v Isaacs* (1938) 12 ALJR 169, 170, where Dixon J held that if the subject matter of a working invention were to be indistinguishable in merit or principle from an existing invention, it would not possess the newness or threshold inventiveness required of a manner of new manufacture. See generally *Gum v Stevens* (1923) 33 CLR 267.

⁶¹ *Patents Act 1990* (Cth) s 40(2)(a).

a person skilled in the relevant art to make or carry out the invention.⁶² This requirement is intended to ensure that the scope of protection afforded by a patent is commensurate with the technical contribution made by the claimed invention. The claims and the specification define the scope of the patentee's monopoly. Equally as important, this requirement also allows the specification to form the basis of further innovation by others. Naturally, the public is free to use the invention and the specifications as to how to perform it at the end of the patent term.⁶³

The exclusive rights granted to a patentee upon the grant of a patent include the right to exploit the invention; the exclusive rights are personal property and are capable of assignment and of devolution by law.⁶⁴ 'Exploit' is further defined as including:

- (a) where the invention is a product — make, hire, sell or otherwise dispose of the product, offer to make, sell, hire or otherwise dispose of it, use or import it, or keep it for the purpose of doing any of those things; or
- (b) where the invention is a method or process — use the method or process or do any acts mentioned in paragraph (a) in respect of a product resulting from such use.⁶⁵

In fact, patents are regarded as a right to exclude others, not a right to use the invention (which accrues to the inventor irrespective of whether a patent is issued).⁶⁶

B Patentable Subject Matter: The 'Manner of Manufacture' Requirement

The head of patentability in s 18 used to determine whether an invention constitutes patentable subject matter is that it be a 'manner of manufacture'. This test stems from s 6 of the *Statute of Monopolies 1623*, which declared void all monopolies, as they were at common law, provided that the invalidating provisions of the statute:

shall not extend to any [letters] Patents and Graunts of Privilege for the tearme of fowerteene yeares or under, hereafter to be made of the sole working or making of any manner of new Manufactures within this Realme, to the true and first Inventor and Inventors of such Manufactures, which others at the tyme of makinge such [letters] Patents and Graunts shall not use, soe as alsoe they be not contrary to the Lawe nor mischievous to the State, by raisinge prices of Comodities at home, or hurt of Trade, or generallie inconvenient ...

⁶² *Samuel Taylor Pty Ltd v SA Brush Co Ltd* (1950) 83 CLR 617, 623–4 (Latham CJ), 625 (McTiernan J), 626 (Webb J); *Kimberly-Clark Australia Pty Ltd v Arico Trading International Pty Ltd* (2001) 207 CLR 1, 16–17 (Gleeson CJ, McHugh, Gummow, Hayne and Callinan JJ), quoting *No-Fume Ltd v Frank Pitchford & Co Ltd* (1935) 52 RPC 231, 243 (Romer LJ); *Decor Corporation Pty Ltd v Dart Industries Inc* (1988) 13 IPR 385, 397–9 (Sheppard J); *AMP Incorporated v Utilux Pty Ltd* (1971) 45 ALJR 123, 128 (McTiernan J); *Valensi v British Radio Corporation* [1973] RPC 337, 376–7 (Russell, Buckley and Cairns LJJ).

⁶³ *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260, 277 (Spender, Gummow and Heerey JJ).

⁶⁴ *Patents Act 1990* (Cth) s 13.

⁶⁵ *Patents Act 1990* (Cth) sch 1.

⁶⁶ *Steers v Rogers* [1893] AC 232, 235 (Lord Herschell LC).

The modern application of the ‘manner of manufacture’ test was explained by the High Court of Australia in *National Research Development Corporation v Commissioner of Patents* (‘NRDC’).⁶⁷ It is now well settled that the decision and reasoning of the High Court of Australia in *NRDC* clarified the existing law in respect of what is patentable subject matter in Australia.⁶⁸ Barwick CJ in *Joos v Commissioner of Patents* described the case as a ‘watershed’.⁶⁹ According to the Full Court of the Federal Court of Australia in *CCOM Pty Ltd v Jiejing Pty Ltd*, ‘the decision changed the direction of the case law not only in Australia but also in the United Kingdom.’⁷⁰ In *NRDC*, the High Court resolved that it is not correct to attempt a literal interpretation of the words used in s 6 of the *Statute of Monopolies*. Instead it said that the question to be asked in determining whether an invention is a patentable subject matter is: ‘Is this a proper subject of letters patent according to the principles which have been developed for the application of s 6 of the *Statute of Monopolies*?’⁷¹ What the Court meant by this is that the principles that underlie the ‘manner of manufacture’ concept are to be induced from the case law in which the concept has been interpreted, expounded and applied.

According to the High Court, those principles are that an invention must be an artificially created state of affairs that is of economic significance, meaning that its value to the country must be in the field of economic endeavour, and that it must have an ‘industrial or commercial or trading character’.⁷² Further, it must offer some advantage that is material in the sense that it must be part of the ‘useful arts’ rather than the ‘fine arts’.⁷³ The Court regarded as inherently unpatentable: non-economic subject matter, which might include surgical methods; natural phenomena, which involve insufficient human involvement or newness to possess the artificiality required of inventions; abstract ideas or plans not of sufficient practical utility or application; and the use of known substances or devices, the utility of which was previously known, and that lack the mechanical inventiveness or novelty of principle required to support a ‘manner of new manufacture’.⁷⁴

⁶⁷ (1959) 102 CLR 252.

⁶⁸ *Grant v Commissioner of Patents* (2006) 154 FCR 62, 64 (Heerey, Kiefel and Bennett JJ).

⁶⁹ (1972) 126 CLR 611, 616.

⁷⁰ (1994) 51 FCR 260, 287 (Spender, Gummow and Heerey JJ). The decision has also been accepted as good law and followed in New Zealand: see *Swift & Co v Commissioner of Patents* [1960] NZLR 775 (‘*Swift*’). The Australian and New Zealand decisions have also been considered in the United Kingdom: United Kingdom, *The British Patent System: Report of the Committee to Examine the Patent System and Patent Law*, Cmnd 4407 (1970) 64, where it was stated that ‘[w]e have no reason to suppose that the United Kingdom Courts will not in future take the liberal view of patentable inventions which was taken by the Australian and New Zealand Courts [in *NRDC* and *Swift*]’. The same conclusion was reached by the Australian Industrial Property Advisory Committee in its review of the *Statute of Monopolies*-based model of inherent patentability prior to the introduction of the *Patents Act 1990* (Cth): see Industrial Property Advisory Committee, *Patents, Innovation and Competition in Australia* (1984) 39–41.

⁷¹ *NRDC* (1959) 102 CLR 252, 269 (Dixon CJ, Kitto and Windeyer JJ).

⁷² *Ibid* 275, citing *Re Lenard’s Application* (1954) 71 RPC 190, 192 (Lloyd-Jacob J).

⁷³ *NRDC* (1959) 102 CLR 252, 275 (Dixon CJ, Kitto and Windeyer JJ), citing *Re Virginia-Carolina Chemical Corporation’s Application* [1958] RPC 35, 36 (Lloyd-Jacob J).

⁷⁴ *NRDC* (1959) 102 CLR 252, 262–4, 275 (Dixon CJ, Kitto and Windeyer JJ).

The scope of patent protection rightly only extends to give incentives to innovators to invent, or invest in the invention and commercialisation of, new inventions. The core issues to be resolved in determining whether storylines are patentable inventions are whether they fall within the useful arts rather than the fine arts and whether they amount to an artificially created state of affairs reduced to sufficient practical application, as opposed to being abstract ideas.

1 *Plots Fall within the 'Fine Arts'*

In *Re Cooper's Application*, the Attorney-General, Sir Robert Finlay, said:

a man could not ask for a Patent to be granted to him for a literary composition. That, if anything, would be the subject of copyright. In order to ask for a Patent a man must come forward saying that he has some invention with reference to a manufacture.⁷⁵

That principle, confirmed in *NRDC*,⁷⁶ has come to represent the position of the fine arts in relation to patents for manufactures.

The fine arts are normally taken to include 'the products of human intellectual activity which seek expression through ... [aesthetic creations such as] painting, sculpture [and] music.'⁷⁷ Methods describing a mechanical process of creating art may be patentable, but an artistic output itself is not.⁷⁸ The first may fall within the useful arts, while the second is firmly among the fine arts. Indeed, many useful applications in respect of art and entertainment that fall within the useful arts have already been patented.⁷⁹ Largely, these art and entertainment related inventions are tools or methods to be applied mechanically to streamline or improve the process by which art is created. Such methods must be able to be performed repeatedly in a consistent fashion to achieve consistent and predictable results to be patentable, but need not realise identical results in the way a machine-press might. Variations in each finished product are acceptable if there is sufficient similarity between the results such that they can be said to have originated in the same process.⁸⁰ What these inventions do not contain are claims

⁷⁵ (1901) 19 RPC 53, 54.

⁷⁶ (1959) 102 CLR 252, 275–6 (Dixon CJ, Kitto and Windeyer JJ).

⁷⁷ Australian Patent Office, *Manual of Practice and Procedures* (2006) vol 2, [2.9.2.4] ('Fine Arts').

⁷⁸ *Ibid.* For examples of arrangements of literary or artistic content possessing the mechanical inventiveness required of an invention, see *Re Fishburn's Application* (1938) 57 RPC 245 (which involved a method of arranging a cinema ticket so that it could be torn in half either way, with all necessary information appearing on either half); *Re Cooper's Application* (1901) 19 RPC 53 (which involved an improved form of newspaper page featuring a blank space along which the page could be folded so as to avoid the trouble involved in reading over the folded part of the paper).

⁷⁹ Examples of art and entertainment related inventions can be found at Internet Patent News Service, *Patent Database*, Patenting Art and Entertainment <<http://www.patenting-art.com/database>>, which lists over 100 industrial-type applications that are used in relation to creating art.

⁸⁰ Any patentable process must be repeatable. To be repeatable in this sense means that, when the process is performed by a person skilled in the relevant art, the result must be substantially repeatable or the process must substantially produce the same result each time it is performed. If the process does not produce substantially similar results when performed then it is not 'useful' as it will not be capable of delivering the result promised in the patent specification. There is no

to pure art, such as particular movies, books, stories, paintings or sculpture. Patent protection in these cases is given to the tools or methods used to create art, not, as Knight would have it, the art itself. By way of example, a product that is a new type of paintbrush for use by an artist would unquestionably be patent-eligible subject matter, as might a new technique of using a paintbrush to increase an artist's efficiency. But the end product, a painting, would not be patentable.

Knight's attempt to categorise fictional plots as falling within the useful arts rather than the fine arts is at best misleading. The essence of this argument is that a literary work (or to be more precise, the idea behind a literary work) falls within the useful arts because they could have practical applications of economic significance. The truth of the matter is, Knight's patentable storylines form only the basis of literary works. Knight's patent applications do not show methods or devices that would enable someone to better, or more efficiently or more rapidly, produce a story plot. Instead, they are artistic works themselves.

2 *Plots Are Merely Abstract Ideas*

Knight complains that copyright does not protect what he considers to be valuable innovation.⁸¹ However, his proposition that an idea insufficient to trigger copyright protection might somehow warrant patent protection⁸² is mistaken.

Patents protect an idea's reduction to practical application, rather than mere ideas. Further, the concept of invention requires a degree of completeness in the subject matter. As the High Court in *NRDC* has told us, patent law requires that there be a functional, working 'method [that] has been put into practice'⁸³ before its protection is forthcoming. Similarly, copyright protects written expression in material form, rather than an idea that may form the basis of a creative work. A story plot is, in that sense, an unfinished work. Without being reduced to a viable written form expressed in a manner sufficient to warrant publication, it is incomplete, and therefore lacking practical application. Thus, it is not an invention, but a mere abstract idea or a combination of abstract ideas. As such, a plot is deserving of neither copyright nor patent protection. The danger of storyline claims is that they would pre-empt subsequent use of the mere ideas they embody, which is an outcome patent law is designed to avoid.

requirement that a process be exactly repeatable or produce exactly the same result each time it is performed; so long as the result achieved is consistent with the result promised by the inventor then the disclosure requirements will have been met and the process will be 'useful': *Badische Anilin und Soda Fabrik v Levinstein* (1887) 12 App Cas 710, 712 (Lord Halsbury LC); *Mentor Corporation v Hollister Inc* [1993] RPC 7; *Lane-Fox v The Kensington and Knightsbridge Electric Lighting Co (Ltd)* (1892) 9 RPC 413, 417–18 (Lindley LJ), 421 (Kay LJ). See also *Biogen Inc v Medeva plc* [1997] RPC 1, 26–7 (P Prescott QC); *Re Swartz*, 232 F 3d 862 (Fed Cir, 2000).

⁸¹ Knight, 'A Potentially New IP', above n 2, 871–3.

⁸² *Ibid* 873.

⁸³ (1959) 102 CLR 252, 277 (Dixon CJ, Kitto and Windeyer JJ).

3 *Plots Lack a Physical Element, Transformation or Effect*

The next question to consider is whether a storyline can be properly seen as an 'invention' even though it lacks any sort of physical element. The essence of Knight's claims are story plots. As a plot by itself does not have a physical element, it is immediately a contentious candidate for patentability.

Some of Knight's plot methods do not specifically claim a physical embodiment, whereas others do. An example of the sort of claim that does not specifically claim a physical embodiment is the claim set out above which begins, '[a] process of relaying a story having ...'.⁸⁴ That is to be contrasted with claims that do involve a physical embodiment, an example being those that recite storylines embodied in tangible storage media such as CDs and DVDs, which are '[a] machine-readable storage medium storing information and configured to cause a machine to perform a process of relaying a story having a unique plot, the story involving characters and having a timeline'.⁸⁵ Each claim will be considered separately.

The Full Court of the Federal Court of Australia in *Grant v Commissioner of Patents* ('*Grant*') has held that an invention must disclose some physical effect or phenomenon to be patentable.⁸⁶ Accordingly, an alleged invention that does not disclose some 'physical effect in the sense of a concrete effect or phenomenon or manifestation or transformation' will not be regarded as being patentable subject matter.⁸⁷

Grant dealt with the patentability of a method created to protect an asset from the claims of creditors. The alleged invention involved a series of elements: first, the creation of a trust; secondly, a person making a gift of money to the trust; thirdly, the trustee lending a sum of money to that first person; and finally, the trustee securing the loan by taking a charge over the asset.⁸⁸ The aim of the method is that the trustee, by virtue of having taken a charge over the asset, would thereby have priority over other creditors of the person in whose favour debts may arise at a later time.⁸⁹ The patent in question (an innovation patent) claimed a method of applying the law. In effect, the patent involved reserving the ability to apply certain aspects of the law in a particular way, to achieve a useful result, to one individual.⁹⁰ The Full Court unanimously rejected *Grant*'s claims and upheld the decision to revoke the patent.⁹¹

It has recently been revealed that the law in the United States contains a similar requirement. There, the law now requires that a process claim satisfy the 'machine-or-transformation' test created by the Court of Appeals for the Federal

⁸⁴ See above n 48 and accompanying text.

⁸⁵ Knight, 'A Potentially New IP', above n 2, 869.

⁸⁶ (2006) 154 FCR 62.

⁸⁷ *Ibid* 70 (Heerey, Kiefel and Bennett JJ).

⁸⁸ *Ibid* 64; *Australian Innovation Patent No 2003100074* (filed 7 February 2003) 2–3.

⁸⁹ See *Australian Innovation Patent No 2003100074* (filed 7 February 2003).

⁹⁰ It was described in this way by the trial judge: *Grant v Commissioner of Patents* (2005) 67 IPR 1, 2–3, 6 (Branson J).

⁹¹ *Grant* (2006) 154 FCR 62, 73 (Heerey, Kiefel and Bennet JJ).

Circuit in *Re Bilski*.⁹² According to that test, a process claim will be patent-eligible if '(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.'⁹³ The Court in *Re Bilski* was of the view that it is embodiment in a particular machine or apparatus, or physical transformation of subject matter, that distinguishes fundamental principles in the abstract from patent-eligible subject matter.⁹⁴

The 'physicality requirement' unveiled in Australia in *Grant* has been criticised,⁹⁵ and there was powerful dissent in the Federal Circuit's decision in *Re Bilski* to the effect that the 'machine-or-transformation' test is inconsistent with existing Supreme Court precedent.⁹⁶ However, under the current law, any storyline patent would need a physical element or need to cause some physical transformation to satisfy the 'manner of manufacture' test in Australia. Accordingly, a storyline of itself would not be patentable.

While it would appear that a bare storyline would not be sufficient to invoke patentable subject matter, there is an argument that a storyline embodied in some physical article of manufacture (a DVD or a book) might be. In fact, after the decisions in *Grant* and *Re Bilski*, there is an obvious temptation on the part of patent attorneys and patentees to avoid the operation of these decisions by adding a physical element to plot claims to give them some material form, in an attempt to pass an unpatentable abstract idea off as a patentable invention. Knight has done this in the second claim example given above, which recites a 'machine-readable storage medium' encompassing a plot.⁹⁷

While the law in Australia does not provide much, if any, guidance on the acceptability of this strategy, United States law is more sophisticated in this regard. In the United States, adding 'insignificant post-solution activity' to otherwise unpatentable subject matter will not make that subject matter patentable. In essence, the principle requires that the invention, being the advance over the prior art, be identified and extracted from any extraneous material contained in the description of the invention or claims that would otherwise

⁹² 545 F 3d 943 (Fed Cir, 2008). The case was decided by a 9:3 majority (Michel CJ, Lourie, Schall, Bryson, Gajarsa, Linn, Dyk, Prost and Moore JJ). Bilski's claims involved a method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price: at 949 (Michel CJ for Michel CJ, Lourie, Schall, Bryson, Gajarsa, Linn, Dyk, Prost and Moore JJ). The 'physical steps' test was rejected: at 960-1; the appellant's method claims were completely devoid of physical apparatus: at 963-4. Bilski then petitioned the United States Supreme Court seeking a writ of certiorari, which was granted: *Bilski v Doll*, 129 S Ct 2735 (2009). The 'machine-or-transformation' test is a creation of the Court of Appeals for the Federal Circuit, rather than a mere application of the existing law: see the dissenting opinion of Newman J in *Re Bilski*, 545 F 3d 943, 976 (Fed Cir, 2008); Benjamin J McEniery, 'The Federal Circuit in *Bilski*: The Machine-or-Transformation Test' (2009) 91 *Journal of the Patent and Trademark Office Society* 253.

⁹³ *Re Bilski*, 545 F 3d 943, 954 (Michel CJ for Michel CJ, Lourie, Schall, Bryson, Gajarsa, Linn, Dyk, Prost, and Moore JJ) (Fed Cir, 2008).

⁹⁴ *Ibid* 964-6.

⁹⁵ See Ben McEniery, 'Patents for Intangible Inventions in Australia after *Grant v Commissioner of Patents*' (Pt 1) (2007) 13 *Computer and Telecommunications Law Review* 70; Ben McEniery, 'Patents for Intangible Inventions in Australia after *Grant v Commissioner of Patents*' (Pt 2) (2007) 13 *Computer and Telecommunications Law Review* 100.

⁹⁶ *Re Bilski*, 545 F 3d 943, 976 (Newman J), 998 (Mayer J), 1011 (Rader J) (Fed Cir, 2008).

⁹⁷ See above n 85 and accompanying text.

confuse the reader as to the true scope of the inventor's contribution to the state of the art. In *Parker v Flook* the United States Supreme Court said that

[t]he notion that post-solution activity, no matter how conventional or obvious in itself, can transform an unpatentable principle into a patentable process exalts form over substance. A competent draftsman could attach some form of post-solution activity to almost any mathematical formula; the Pythagorean theorem would not have been patentable, or partially patentable, because a patent application contained a final step indicating that the formula, when solved, could be usefully applied to existing surveying techniques.⁹⁸

In *Diamond v Diehr* the majority confirmed that 'insignificant postsolution activity will not transform an unpatentable principle into a patentable process'.⁹⁹ Then Stevens J, in the minority judgment, described the 'insignificant post-solution activity' (that appeared in *Parker v Flook* and was referred to by the majority in *Diamond v Diehr* as 'token')¹⁰⁰ as activity that 'does not constitute a part of the inventive concept that the applicants claimed to have discovered.'¹⁰¹

The United States Supreme Court developed this rule to combat attempts by patentees to disguise the fact that they had drafted unpatentable claims over all conceivable uses of a principle of nature or an algorithm. Patentees would often make an apparatus claim, limiting claims to a particular device or field of technology.¹⁰² The Court's response to this strategy was to clearly delineate the inventive advance achieved and distinguish it from any extraneous limiting material the patentee has sought to introduce so as to avoid improperly approving a patent over any of the excluded categories of subject matter, even if only within a limited field of use. The effect is that if the particular device or field of technology is not integral to the invention claimed, its presence is ignored.

Such a principle would be a necessary and sensible addition to Australian law. It would assist patent examiners and the public distinguish deserving inventions from claims made upon artful drafting that are not truly deserving of a patent monopoly. It would be decisive in distinguishing principles of nature and abstract ideas from patentable inventions, demanding that the inventive step be housed in something capable of practical application. It would help defend against artful claims that would seek to privatise unpatentable principles and laws of nature by simply appending a physical device to uses of those natural phenomena.

Regardless of Australian law's silence on this issue, it should be clear that any attempt to define the claims at issue in storyline patents in terms of storage

⁹⁸ 437 US 584, 590 (Stevens J for Brennan, White, Marshall, Blackmun, Powell and Stevens JJ) (1978).

⁹⁹ 450 US 175, 191–2 (Rehnquist J for Burger CJ, Stewart, White, Powell and Rehnquist JJ) (1981), citing *ibid* 586.

¹⁰⁰ *Diamond v Diehr*, 450 US 175, 193 (Rehnquist J for Burger CJ, Stewart, White, Powell and Rehnquist JJ) (1981).

¹⁰¹ *Ibid* 215 (Stevens J for Brennan, Marshall and Blackmun JJ).

¹⁰² See, eg, *Parker v Flook*, 437 US 584, 590 (Stevens J for Brennan, White, Marshall, Blackmun, Powell and Stevens JJ).

within a physical medium goes beyond the nature of the alleged invention. Knight's approach of claiming storylines embodied in tangible storage media, as he contends, has parallels with the computer software cases that require a software program to be stored on some data storage medium, such as a floppy disk, hard disk or CD-ROM.¹⁰³ The difference between storyline and computer software, however, is that the operation of a computer is integral to software's functionality. Software algorithms or methods alone are useless; they must be executed on a computer to be useful and require the automation and interactivity that a general purpose computer can provide. Plots are different. The nature of the alleged advance of an 'inventor of plots' is wholly disconnected from physical form. A plot is just a sequence of ideas that steps through the major events in a story. Plots can be enjoyed and function without specific physical instantiation in a way computer software cannot. Physical instantiation of a plot is necessary for broad dissemination, not function; for instance, plots can be communicated verbally and thus enjoyed in the way that storytelling has been since time immemorial. Any physical instantiation that Knight might attempt to append to a plot is extraneous to any alleged 'flash of genius' of which it might have been born. The same cannot be said for computer programs, though, as any 'flash of genius' in that field involves manipulating a general purpose computer in such a way as to make it produce a new functionality.

4 *Plots Fall outside the 'Technological Arts'*

One commentator in the United States has suggested that any alleged storyline invention would fail to satisfy the so-called 'technological arts' requirement, whereby courts confine the scope of patentable subject matter to the realm of technology, and that works of fiction, music, and 'business methods not implemented with computer technology' would be unpatentable.¹⁰⁴ Knight seeks to dismiss this suggestion by disputing the existence of any 'technological arts' requirement.¹⁰⁵

The so-called 'technological arts' requirement arguably lies in the *United States Constitution*, which authorises the United States Congress:

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries ...¹⁰⁶

It has been argued that Congress may not establish patent laws under the authority of this intellectual property clause that are contrary to the stated

¹⁰³ See, eg, *Burroughs Corporation (Perkins') Application* [1974] RPC 147, 158 (Graham J); *International Business Machines Corporation's Application* [1980] FSR 564, 572 (Whitford J); *Re Beauregard*, 53 F 3d 1583 (Fed Cir, 1995). See generally *Re Alappat*, 33 F 3d 1526 (Fed Cir, 1994); *International Business Machines Corporation v Commissioner of Patents* (1991) 33 FCR 218; *CCOM Pty Ltd v Jiejing Pty Ltd* (1994) 51 FCR 260.

¹⁰⁴ Note, 'Pure Fiction: The Attempt to Patent Plot' (2005) 19 *Harvard Journal of Law and Technology* 231, 235-41, 237 (Melissa Patterson authored the note; her name was provided by the editor upon request).

¹⁰⁵ Knight, 'A Patently Novel Plot', above n 1, 207-8.

¹⁰⁶ *United States Constitution* art 1 § 8 cl 8.

purpose of the clause, nor enact patent laws exceeding the constitutional objective.¹⁰⁷ While there is little historical evidence of what is meant by 'useful arts', it appears that the term was intended to refer to 'arts' used in manufacturing industry and the production of goods.¹⁰⁸ Some have suggested that the present day equivalent of the term 'useful arts' used in the *United States Constitution* is 'technological arts'.¹⁰⁹ Accordingly, any patent law that does not promote the progress of the 'useful arts', or its equivalent, the 'technological arts', would be unconstitutional.¹¹⁰

While it is recognised that the terms 'useful arts' and 'technological arts' are notoriously difficult to define, in the absence of a workable definition commentators¹¹¹ and the United States Patent and Trademark Office¹¹² have identified at

¹⁰⁷ *Graham v John Deere Co*, 383 US 1, 5–6 (Clark J for Warren, Harlan, Brennan, Black, Clark, White, Douglas and Stewart JJ) (1966); *Bonito Boats Inc v Thunder Craft Boats Inc*, 489 US 141, 146 (O'Connor J for the Court) (1989).

¹⁰⁸ Robert I Coulter, 'The Field of the Statutory Useful Arts' (Pt II) (1952) 34 *Journal of the Patent Office Society* 487, 496; Alan Durham, "'Useful Arts' in the Information Age" [1999] *Brigham Young University Law Review* 1419, 1431–7; Richard H Stern, 'Being within the Useful Arts as a Further Constitutional Requirement for US Patent-Eligibility' (2009) 31 *European Intellectual Property Review* 6, 13–15.

¹⁰⁹ *Re Musgrave*, 431 F 2d 882, 893 (Rich J for Rich, Almond, Lane and Rosenstein JJ) (CCPA, 1970). The Court in *Re Musgrave* cites no authority for the proposition that the 'technological arts' and 'useful arts' are equivalent, while *Re Musgrave* itself is cited as authority for the proposition in subsequent opinions. See also *Re Waldbaum*, 457 F 2d 997, 1003 (Baldwin J for Almond, Baldwin, Lane and Rao JJ) (CCPA, 1972): 'The phrase "technological arts," as we have used it, is synonymous with the phrase "useful arts" as it appears in Article I, Section 8 of the *Constitution*'. Rich J concurred: at 1003–4. Arguably the most exhaustive attempt to define 'useful arts' is found in Robert I Coulter's three part series: Robert I Coulter, 'The Field of the Statutory Useful Arts' (Pt I) (1952) 34 *Journal of the Patent Office Society* 417; Coulter, 'The Field of the Statutory Useful Arts' (Pt II), above n 108; Robert I Coulter, 'The Field of the Statutory Useful Arts' (Pt III) (1952) 34 *Journal of the Patent Office Society* 718. See also Karl B Lutz, 'Patents and Science: A Clarification of the Patent Clause of the US *Constitution*' (1949) 18 *George Washington Law Review* 50, 54; Durham, above n 108, 1437; John R Thomas, 'The Patenting of the Liberal Professions' (1999) 40 *Boston College Law Review* 1139, 1140.

¹¹⁰ *Graham v John Deere Co*, 383 US 1, 5–6 (Clark J for Warren, Harlan, Brennan, Black, Clark, White, Douglas and Stewart JJ) (1966) (citations omitted):

At the outset it must be remembered that the federal patent power stems from a specific constitutional provision which authorizes the Congress '[t]o promote the Progress of ... useful Arts ...' The clause is both a grant of power and a limitation. This qualified authority, unlike the power often exercised in the sixteenth and seventeenth centuries by the English Crown, is limited to the promotion of advances in the 'useful arts.' ... The Congress in the exercise of the patent power may not overreach the restraints imposed by the stated constitutional purpose.

See also *Re Yuan*, 188 F 2d 377, 380 (Garrett CJ for Garrett CJ, Jackson, O'Connell, Johnson and Worley JJ) (CCPA, 1951) ('[i]t is interesting to note that this particular grant is the only one of the several powers conferred upon the Congress which is accompanied by a specific statement of the reason for it'); *Ex parte Lundgren*, 76 USPQ 2d (BNA) 1385, 1388 (Smith J) (Bd Pat App & Int, 2005) (designated precedential opinion); *Ex parte Bilski*, Appeal No 2002–2257, 69–70 (Barrett J) (Bd Pat App & Int, 2006); Durham, above n 108, 1426; Malla Pollack, 'The Multiple Unconstitutionality of Business Method Patents: Common Sense, Congressional Consideration, and Constitutional History' (2002) 28 *Rutgers Computer and Technology Law Journal* 61, 118–19.

¹¹¹ See Thomas, 'The Patenting of the Liberal Professions', above n 109, 1140; John R Thomas, 'The Post-Industrial Patent System' (1999) 10 *Fordham Intellectual Property, Media & Entertainment Law Journal* 3, 7; Durham, above n 108, 1513; Thomas F Cotter, 'A Burkean Perspective on Patent Eligibility' (2007) 22 *Berkeley Technology Law Journal* 855, 871–2.

¹¹² See *Ex parte Lundgren*, 76 USPQ 2d (BNA) 1385, 1400–1 (Smith J) (Bd Pat App & Int, 2005) (designated precedential opinion); *Ex parte Bilski*, Appeal No 2002–2257, 19 (Barrett J) (Bd Pat App & Int, 2006).

least one characteristic that is a good indication that an alleged invention falls within the realm of the 'technological arts'. That characteristic is that the alleged invention discloses a physical transformation or effect.

The alternative view is that the 'useful arts' or 'technological arts' limitation requires that an alleged invention be limited to advances in 'science and technology' if it is to be patentable.¹¹³ This view, however, has not found favour with the Federal Court of Australia, which rejected it in *Grant*.¹¹⁴ Nevertheless, it should not be dismissed out of hand as there is no guarantee that the High Court of Australia would concur with the Federal Court on this point. The question must be regarded as open as it is possible that the High Court might regard this limitation, broadly construed, as being consistent with the objectives of the patent system and adopt it as good law.

Despite Australia not having a constitutional useful arts limitation or an express limitation to this effect in the *Patents Act 1990* (Cth), it is important to consider whether the history of case law that defines the bounds of the manner of manufacture test demands that an invention give some technological result or that the grant of a patent is limited to technological innovation.¹¹⁵ The applicability of this approach for use in Australia is particularly interesting given that the Federal Court in *Grant* has already given implicit support for a technological arts requirement (although it did not consider the issue in any depth).¹¹⁶ Whether such an approach exists under Australian law to limit the scope of patentability to innovations that disclose a physical element or disclose scientific or technological innovation remains to be seen.

What can be said of the 'manner of manufacture' test, as interpreted by the High Court to date, is that it requires that an invention be of an 'industrial or commercial or trading character'.¹¹⁷ However, as that expression has not been elaborated on in the case law following the *NRDC* decision, not much can be said about what this test means or how it is to be applied other than that a common-sense interpretation of the individual terms used should be taken. An attempt to patent a plot might be seen as falling outside the 'technological arts' for failure to employ some physical means or might simply be written off as

¹¹³ See, eg, *Re Bilski*, 545 F 3d 943, 998 (Mayer J) (Fed Cir, 2008); *Re Grant* [2004] APO 11 (Unreported, Deputy Commissioner Herald, 26 May 2004) [25]; *Re Peter Szabo & Associates Pty Ltd* (2005) 66 IPR 370, 377 (Deputy Commissioner Herald); William van Caenegem, 'The Technicality Requirement, Patent Scope and Patentable Subject Matter in Australia' (2002) 13 *Australian Intellectual Property Journal* 41.

¹¹⁴ (2006) 154 FCR 62, 71 (Heerey, Kiefel and Bennett JJ): 'We think that to erect a requirement that an alleged invention be within the area of science and technology would be to risk the very kind of rigidity which the High Court warned against.'

¹¹⁵ van Caenegem, above n 113, 51–2. In this article van Caenegem asserts that *NRDC* and associated case law discloses a technicality requirement.

¹¹⁶ (2006) 154 FCR 62, 68 (Heerey, Kiefel and Bennett JJ), where, while referring to the decision of Heerey J in *Welcome Real-Time SA v Catuity Inc* (2001) 113 FCR 110, the Full Court said that '[h]is Honour drew a distinction between a technological innovation which is patentable and a business innovation which is not.'

¹¹⁷ *NRDC* (1959) 102 CLR 252, 275 (Dixon CJ, Kitto and Windeyer JJ), citing *Re Lenard's Application* (1954) 71 RPC 190, 192 (Lloyd-Jacob J). Lloyd-Jacob J also equated the word 'vendible' with things of 'commercial value' in *Re Elton and Leda Chemicals Ltd's Application* [1957] RPC 267, 269.

failing to conform to an 'industrial', 'scientific' or 'technological' character by virtue of being concerned exclusively with the 'fine arts'.

5 *Plots Are Therefore Not Patentable Subject Matter*

Storylines are not patentable subject matter as they fall within the 'fine arts' rather than the 'useful arts'. As such they are clearly excluded subject matter according to the test set out by the High Court in the *NRDC* decision. Secondly, storylines are mere abstract ideas, not reduced to a specific and useful practical application, and therefore are not an artificially created state of affairs. Further, it is arguable that storylines are not within the 'technological arts' and not of an 'industrial or commercial or trading character'.

The lack of physicality in the nature of the advance claimed is also indicative of it not being patentable. Even if it were later found that *Grant* had been incorrectly decided, close examination of the claims would confirm them to be unpatentable for the reasons discussed above.¹¹⁸ Storylines cannot be clothed in false garments of physicality, either in Australia or the United States, so as to be passed off as patentable subject matter.

C *Novelty and Inventive Step*

In Australia, a patent will only be granted for an invention that is novel.¹¹⁹ This means that the invention must be new in the sense that it has not been revealed to the public either through publication in a document or use in public. The novelty of each claim in a patent application is assessed against the 'prior art base', which comprises publicly available 'prior art information' as it existed at the 'priority date' of the relevant patent claim.¹²⁰ The prior art base includes information that is made publicly available in a document or a related series of documents, or through doing an act or a related series of acts, as well as information contained in a published patent application that has an earlier priority date than the application under examination.¹²¹ Where an invention is disclosed in more than one document, or by more than one act, the documents or acts will be considered together only if the relationship between them is such that a person skilled in the relevant art would treat them as a single source of information.¹²²

Where an invention is not novel when compared with the prior art, it is said to have been anticipated by that prior art. The prior art information must disclose all the essential integers of the invention in order for the invention at issue to lack novelty.¹²³ The test for determining whether an invention lacks novelty is the 'reverse infringement' test, set out in *Meyers Taylor Pty Ltd v Vicarr Industries Ltd* by Aickin J: 'The basic test for anticipation or want of novelty is the same as that for infringement and generally one can properly ask oneself whether

¹¹⁸ See above nn 86–93 and accompanying text.

¹¹⁹ *Patents Act 1990* (Cth) s 18(1)(b)(i).

¹²⁰ *Patents Act 1990* (Cth) s 18(1), sch 1.

¹²¹ *Patents Act 1990* (Cth) s 7, sch 1.

¹²² *Patents Act 1990* (Cth) s 7(1)(b).

¹²³ *Meyers Taylor Pty Ltd v Vicarr Industries Ltd* (1977) 137 CLR 228, 235 (Aickin J).

the alleged anticipation would, if the patent were valid, constitute an infringement'.¹²⁴

Infringement of a claim occurs where 'each and every one of the essential integers' of that claim have been taken.¹²⁵ In other words, if a citation discloses all the features of a claim, the claim will lack novelty. If the citation does not disclose all the features of the claim, the claim will still lack novelty provided the citation discloses all the essential features of the claim. Therefore, if an *essential* feature is not disclosed in the citation, the claim is novel.

Patent protection will be granted in Australia only for inventions that involve an 'inventive step' (in the case of an application for a standard patent), or an 'innovative step' (in the case of an application for an innovation patent). Inventive step is defined in s 7 of the *Patents Act 1990* (Cth) and requires a determination of whether an invention would have been obvious to 'a person skilled in the relevant art'. This assessment is made in light of the 'common general knowledge' as it existed in Australia, being the patent area, before the priority date of the claim.¹²⁶ It may also take into consideration prior art information before the priority date that a person skilled in the art could reasonably be expected to have ascertained, understood and regarded as relevant.¹²⁷

Critics of Knight's premise, that it is possible to create a new and unique plot, have argued that in reality there are no new stories, just variations of old tales and themes that have been used many times before.¹²⁸ It has been said that there are but a finite and remarkably small number of plots in existence. If you write a story about a character, there are only so many things that can happen. While estimates of the number of distinct plots vary, examples are found in Georges Polti's *The Thirty-Six Dramatic Situations* (1917) and Christopher Booker's *The Seven Basic Plots: Why We Tell Stories* (2004). *The Thirty-Six Dramatic Situations* is a descriptive list which was created to categorise every dramatic situation that might occur in a story or performance. Similarly, *The Seven Basic Plots* details what Booker regards as the seven plots upon which all literature is built.¹²⁹

Thus it is said that the art of storytelling is one of retelling.¹³⁰ Of course, that all fiction involves a retelling of other stories does not mean that the literary world is full of rampant copyright infringement.¹³¹ As Knight has demonstrated, it is possible to take the essence of another story's plot without infringing

¹²⁴ Ibid (citations omitted).

¹²⁵ *Rodi & Wienberger AG v Henry Showell Ltd* [1969] RPC 367, 391 (Lord Upjohn).

¹²⁶ *Patents Act 1990* (Cth) s 7(2) (in relation to an 'inventive step'); see also ss 7(4)–(5) (in relation to an 'innovative step').

¹²⁷ *Patents Act 1990* (Cth) s 7(3).

¹²⁸ Patterson, above n 104, 231–2.

¹²⁹ Booker describes his seven plots as very broad themes, such as 'overcoming the monster' (which includes *Beowulf*, *Jaws*, *Little Red Riding Hood*, and various Bond films), 'rags to riches' (which includes *Cinderella*, *The Ugly Duckling*, and *David Copperfield*), and 'voyage and return' (which includes *Robinson Crusoe*, *Alice's Adventures in Wonderland*, and *The Time Machine*): Christopher Booker, *The Seven Basic Plots: Why We Tell Stories* (2004) 1, 21–2, 25, 38, 52, 88, 90, 92.

¹³⁰ Patterson, above n 104, 231.

¹³¹ Jessica Litman, 'The Public Domain' (1990) 39 *Emory Law Journal* 965, 966–7.

copyright.¹³² All that is suggested is that, while there is ample scope to create new tales by adapting existing general themes, there really are no new plots. Assuming this to be correct, it would not be possible to create a novel and inventive plot.

Thus, the likelihood, it seems, is that there will always be some piece of prior art that will anticipate a new and supposedly inventive plot. Minor variations on a theme may generate many varied storylines but would remain referable to a core story and therefore be likely to fail for lack of either novelty or inventiveness. Likewise, an amalgamation of different plot ideas in a hitherto untried manner is likely to be treated as though anticipated by a single source of information.

Some have sought to show, in a practical way, that Knight's storyline patent applications lack novelty and inventiveness, by identifying instances in which the claims he has made to particular plots have been anticipated by popular movies and television programs.¹³³

D *Utility and the Incomplete Nature of the Invention*

An inventor must disclose the invention in the patent specification in sufficient detail and with sufficient clarity as to allow a person skilled in the relevant art to make or carry out the invention.¹³⁴ A complete specification must 'describe the invention fully, including the best method known to the applicant for performing the invention'.¹³⁵ This is known as the 'sufficiency' requirement. The patent claim must also be 'clear and succinct and fairly based on the matter described in the specification'.¹³⁶ This is known as the 'fair basis' requirement. The requirement in s 18, that an invention be 'useful',¹³⁷ ties in closely with what must be disclosed in the patent application. Section 18 requires that the patent must produce the results that are promised by the specification; that is, the invention must work or operate as promised. It does not require that an invention be useful

¹³² See Knight, 'A Potentially New IP', above n 2, 874–5, citing *US Patent Application 20050244804* (filed 28 November 2003).

¹³³ Ben Manevitz, 'What's the Story with Storyline Patents — An Argument against the Allowance of Proposed Storyline Patents and for the Rejection of Currently Pending Storyline Patent Applications' (2006) 24 *Cardozo Arts and Entertainment Law Journal* 717, 732–6; Greg Aharonian, 'Patenting Movies and Music?' (2005) 27(7) *Entertainment Law Reporter* 4, 4. The specific claims to particular plots Knight has made can be found in the United States patent applications set out at above n 1.

¹³⁴ See above nn 61–2.

¹³⁵ *Patents Act 1990* (Cth) s 40(2)(a).

¹³⁶ *Patents Act 1990* (Cth) s 40(3).

¹³⁷ *Patents Act 1990* (Cth) ss 18(1)(c), (1A)(c). Usefulness is not an express requirement for examination of a standard Australian patent application. Therefore, the Commissioner of Patents does not have to be satisfied that an invention is useful under s 18(1)(c) before accepting a patent application: s 49(1). For innovation patents, s 18(1A)(c) is not a ground for revocation: s 101B(2). Usefulness is a ground for revocation of a standard patent under s 138(3)(b), but is not a ground upon which a patent may be opposed and is not referred to on re-examination.

in the sense that it is worthwhile or commercially practical, only that if a particular result is claimed, it must be achievable.¹³⁸

Compliance with this requirement is difficult given the incomplete and abstract nature of storylines. Patent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable. Storyline patents teach only how to reproduce the plot disclosed. They leave a significant amount of work to be done to transform the plot outline of a story into a story proper, such as: developing characters; describing people, physical structures and events; creating dialogue; and revealing the plot at an appropriate pace. These are not outcomes that would flow naturally from having possession of a patented plot, as the patent specification would not demonstrate how a skilled reader might be instructed to tell the story outlined so as to enable a finished product to be created. As was said in *Brenner v Manson*, 'a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion.'¹³⁹ As such, the claims lack utility, for without reduction of an idea to practice there can be no certainty that the idea actually works, and there would appear to be no quid pro quo between the patentee of a storyline patent and the public that would justify the award of monopoly rights. Patterson also notes that, were patents granted to individuals incapable of transforming a plot into a complete and coherent story with characters, dialogue and prose, 'it would lead to the nonsensical result that the inventor could not execute the very process over which he claims a monopoly',¹⁴⁰ which, in the absence of a compulsory licence, would potentially deny the public access to use the entire plot for the duration of the patent.

IV POLICY: SHOULD STORYLINES BE PATENTABLE?

The purpose of patent law is to encourage people to invent and commercialise new products and processes by giving them an incentive to do so.¹⁴¹ It is the potential economic rewards to be reaped during the patent term that are the carrot that induces the effort, time, expenditure and other resources to be directed into

¹³⁸ *Advanced Building Systems Pty Ltd v Ramset Fasteners (Aust) Pty Ltd* (1998) 194 CLR 171, 187 (Brennan CJ, Gaudron, McHugh and Gummow JJ); *Abbott Laboratories v Corbridge Group Pty Ltd [No 2]* [2001] FCA 810 (Unreported, Gyles J, 29 June 2001) [22]. Note that art 17.9.1 of the *Australia-United States Free Trade Agreement*, signed 18 May 2004, [2005] ATS 1 (entered into force 1 January 2005), defines 'useful' as meaning 'of industrial application.' This definition is quite problematic as it differs from the current case law.

¹³⁹ 383 US 519, 536 (Fortas J for Warren, Fortas, Harlan, Brennan, Black, Stewart, Clark, White and Douglas JJ) (1966).

¹⁴⁰ Patterson, above n 104, 242.

¹⁴¹ Subcommittee on Patents, Trademarks and Copyrights, US Senate Committee on the Judiciary (prepared by Fritz Machlup), *An Economic Review of the Patent System* (1958) 33. See generally Joseph A Schumpeter, *Capitalism, Socialism, and Democracy* (2nd ed, 1942) chs VII-IX; Staniforth Ricketson, *The Law of Intellectual Property* (1984) 7; Stanley M Besen and Leo J Raskind, 'An Introduction to the Law and Economics of Intellectual Property' (1991) 5(1) *Journal of Economic Perspectives* 3, 5; Leo J Raskind, 'The *State Street Bank* Decision: The Bad Business of Unlimited Patent Protection for Methods of Doing Business' (1999) 10 *Fordham Intellectual Property, Media and Entertainment Law Journal* 61, 67.

innovation. The consideration for such a grant is that the inventor discloses the invention.¹⁴²

The reason for providing an incentive to innovate is that there is a link between innovation and standards of living and prosperity. Innovation is the creation of new and improved products and processes which are the product of the mind's inventive and creative activity. Innovation is considered essential to a country's economic growth and competitiveness in overseas markets and to its economic prosperity and its people's standard of living.¹⁴³

James Boyle warned of the dangers of passively allowing the 'second enclosure movement', which is the movement to enclose the intellectual commons with strong intellectual property protection, to take place.¹⁴⁴ This warning was made in the knowledge that innovation is a cumulative process. Most creative and inventive output is inspired by, and an improvement on, existing technologies. The ideas encompassed in one person's invention serve as the basis of another person's improvement.¹⁴⁵ In this regard, it must be remembered that patent laws are not just concerned with the privatisation of new inventions. Protection of the commons remains one of the goals of patent law.¹⁴⁶

Knight argues that, as storylines are valuable to someone, they should be recognised as a species of property and afforded protection. He says there are storylines that are 'so inventive, so surprising, and so profound that *any* expression of [them] is valuable'.¹⁴⁷ His argument is that 'public policy dictates a need

¹⁴² William D Nordhaus, *Invention, Growth, and Welfare: A Theoretical Treatment of Technological Change* (1969) ch 1; Mark A Lemley, 'Ex Ante versus Ex Post Justifications for Intellectual Property' (2004) 71 *University of Chicago Law Review* 129, 129–30; Richard Gilbert and Carl Shapiro, 'Optimal Patent Length and Breadth' (1990) 21 *RAND Journal of Economics* 106, 106. It should be recognised that the patent incentive does not solely relate to providing an incentive for innovation, but has now moved to providing an incentive for invention and the commercialisation of new products: Subcommittee on Patents, Trademarks and Copyrights, above n 141, 36–8.

¹⁴³ United States Federal Trade Commission, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (2003) 1, citing Federal Reserve Board Vice Chairman Roger W Ferguson Jr, 'Patent Policy in a Broader Context' (Speech delivered at the 2003 Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia, 5 April 2003): 'innovation benefits consumers through the development of new and improved goods, services, and processes. An economy's capacity for invention and innovation helps drive its economic growth and the degree to which standards of living increase.'

¹⁴⁴ James Boyle, 'The Second Enclosure Movement and the Construction of the Public Domain' (2003) 66(1–2) *Law and Contemporary Problems* 33, 37. For opinions on the importance of maintaining the public domain when new intellectual property interests are recognised, see generally David Lange, 'Recognizing the Public Domain' (1981) 44(4) *Law and Contemporary Problems* 147; Litman, above n 131; Yochai Benkler, 'Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain' (1999) 74 *New York University Law Review* 354.

¹⁴⁵ Suzanne Scotchmer, 'Standing on the Shoulders of Giants: Cumulative Research and the Patent Law' (1991) 5(1) *Journal of Economic Perspectives* 29, 29–30.

¹⁴⁶ *Graham v John Deere Co*, 383 US 1, 5–6 (Clark J for Warren, Harlan, Brennan, Black, Clark, White, Douglas and Stewart JJ) (1966); *Gottschalk v Benson*, 409 US 63, 67 (Douglas J for Burger CJ, Douglas, Brennan, White, Marshall and Rehnquist JJ) (1972). See generally Thomas, 'The Patenting of the Liberal Professions', above n 109; Thomas, 'The Post-Industrial Patent System', above n 111; John R Thomas, 'Liberty and Property in the Patent Law' (2002) 39 *Houston Law Review* 569.

¹⁴⁷ Knight, 'A Potentially New IP' above n 2, 871 (emphasis in original).

for legal protection, in the form of intellectual property rights, for the entire work — expression *and* storyline.¹⁴⁸ The essence of the argument is consistent with the view that anything of value should be recognised as a species of property and afforded protection as such.¹⁴⁹

Knight's plan would produce results contrary to his stated aims to create innovation in the market for stories. While new story ideas are undoubtedly of some value, there are a number of arguments that explain why they are not the sort of innovation the patent system is designed to encourage. Allowing storyline patents would suppress artistic creation by erecting barriers to entry for those who would write, reduce the number of plots available to be made into new stories, unfairly restrict public access to concepts and material that ought to reside in the public domain, and consequently retard cultural development.¹⁵⁰

The difficulty with patent law is that infringement can be inadvertent, unintentional and done without knowledge or intent. If its scope is allowed to branch out into literature and film, writers would, at best, need to engage in due diligence to ensure they avoid infringing plot patents and the threat of litigation and financial ruin or, worse, under a cloud of uncertainty they would abandon their talents and deprive us of their works. New writers without deep pockets or not linked with established publishing companies would be deterred from entering the market or even distributing their work free of charge. If it were not for the dual requirements of novelty and inventiveness, storyline patents would have the effect of maintaining the status quo in the publishing and writing industries by removing a layer of competition in the market, leading to more repetition and less innovation in story plots. In particular, storyline patents would pose a big threat to new writers by imposing tall barriers to entry. Had the idea of patenting storylines been around in the 1850s, perhaps Charles Dickens would not have written great pieces of literature such as *Bleak House*, *Great Expectations* or *A Tale of Two Cities*.

Knight assumes that retelling the same plots with new characters, settings, perspectives and themes is something patent law should restrict. In essence, he is calling for radical creativity in the literary and cinematic worlds rather than incremental improvement upon the existing art. This argument displays a misunderstanding of the nature of the creative process inherent in the 'fine arts' which, whether it be in literature, painting, sculpture, music or any other field, necessarily requires re-use, adaptation and an ability to build upon the general themes found in existing works. It is about taking inspiration from the world around us. Further, the value in artistic works lies in the nature of their expression. That is why copyright law is applied to material form in the way that it is and why patent law exists outside the fine arts. The fine arts would be much less exotic, as would our lives, if entrepreneurs could reserve all forms of artistic

¹⁴⁸ Ibid 860–1 (emphasis in original).

¹⁴⁹ See, eg, Maurer, above n 34.

¹⁵⁰ See Litman, above n 131, 969: 'When individual authors claim that they are entitled to incentives that would impoverish the milieu in which other authors must also work, we must guard against protecting authors at the expense of the enterprise of authorship.'

expression in respect of a stated idea for their own use, potentially allowing untalented hacks to prevent authors exercising their craft or gouge them with licence fees.

Further, patent law does not make provision for parodies, satire and social commentary. Parodies need to mimic an original work to convey a criticism of that work. It seems unlikely that a humorous take on a patented mechanical device would give rise to a merchantable product. However, if a parody or satire were to reproduce the patented steps of a storyline method claim, there would be no defence to an allegation of infringement.

As Patterson has noted,¹⁵¹ the failure to prevent the publication of Alice Randall's *The Wind Done Gone* (2001) is an example of the intellectual property system vanquishing an attempt to prevent an author appropriating an entire plot for the purpose of social commentary. Randall retold the story of *Gone With the Wind* by Margaret Mitchell from the view of the plantation master's illegitimate daughter (a slave of mixed race) as a challenge to the very conservative perspectives and judgments on display in that book.¹⁵² The Eleventh Circuit reversed a preliminary injunction preventing publication, which had been granted after the Mitchell estate argued the work to be a copyright infringement.¹⁵³ If such works were not to see the light of day for fear of patent infringement, it would be a tragedy and it would concrete the acceptance of established perspectives and values.

The proposed storyline patents would also have the extreme effect of cordoning a plot off from public discussion, thus affecting freedom of speech. Such patents might be disallowed in the United States by operation of the guarantee of freedom of speech enshrined in the First Amendment,¹⁵⁴ but no such restriction exists in Australia.

Finally, the point must be made that patents are not necessary to provide incentives for the creation of new stories. Wonderful, inspirational, action-packed and touching stories are plentiful, but are not necessarily on DVD. All they need is to be found. My mother used to chastise me as a child, saying that only boring people feel bored, whereas interesting people find interesting things to do. The fact that Knight claims to feel boredom with Hollywood film scripts possibly indicates only that it is time for him to branch out and enjoy other forms of entertainment.

For these reasons, as a matter of policy, the incursion of storylines into the sphere of patentable subject matter should not be allowed.

¹⁵¹ Patterson, above n 104, 248–9.

¹⁵² *SunTrust Bank v Houghton Mifflin Co*, 268 F 3d 1257, 1270 (Birch J for Birch, Marcus and Wood JJ) (11th Cir, 2001). The Court stated that 'based upon our analysis of the fair use factors we find, at this juncture, [*The Wind Done Gone*] is entitled to a fair-use defense': at 1276. The Court also agreed (at 1267) that *The Wind Done Gone* 'is largely an encapsulation of [*Gone With the Wind* that] exploits its copyrighted characters, story lines, and settings as the palette for the new story', quoting *SunTrust Bank v Houghton Mifflin Co*, 136 F Supp 2d 1357, 1367 (Pannell DJ) (ND Ga, 2001).

¹⁵³ *SunTrust Bank v Houghton Mifflin Co*, 268 F 3d 1257, 1259 (Birch J for Birch, Marcus and Wood JJ) (11th Cir, 2001).

¹⁵⁴ See generally Patterson, above n 104, 244–9.

V CONCLUSION

There are three reasons why storylines will not form part of the patent landscape in Australia. These are: they are not patentable subject matter; they cannot either be novel or sufficiently inventive to be distinguished from existing literature; and they lack utility, as they cannot be sufficiently described so as to be reproduced by a person skilled in the art to create a useful product.

Contrary to what Knight maintains, the fact that his claimed methods are for producing entertainment is a decisive factor rendering them unpatentable subject matter, in Australia at least. The High Court of Australia was clear in *NRDC* that matter falling within the fine arts be excluded from patentability. Had Knight's claims been for a new technological device that was of utility in producing entertainment, perhaps a different conclusion would be possible, but a claim to literature or other entertainment itself will not hold water.

Knight's storyline claims must be seen for what they are: impermissible attempts to privatise unpatentable ideas that are elements of the fine arts and have not been reduced to a specific and useful purpose. They are not inventions. These storylines are not so much useful products in the sense of a complete novel ready for publication but are instead ideas for stories, which are by their nature incomplete and abstract and leave much work and independent decision-making to be done.

As a matter of policy, storylines are not a desirable subject matter for patentability. Unlike the traditional types of invention protected by the patent system, such as new types of mechanical equipment, new electrical devices or new agricultural methods, plot patents are likely to stifle, rather than enhance, innovation. To allow patents of this type would seriously and detrimentally impinge upon our ability to use the raw tools accumulated in the storehouse of human knowledge that is the public domain and would thereby be detrimental to human cultural advancement. Possibly the only benefit of allowing storyline patents would be that they would support the employment of literature and movie buffs to act as consultants to writers and lawyers providing services in due diligence and litigation.

Ultimately, the attempt to patent plot reveals a misunderstanding of the nature of creative works and the creative process: they necessarily require re-use, adaptation and an ability to build upon general themes in existing works. Indeed, Knight's arguments are premised around the contention that borrowing from, adapting, reinterpreting and retelling plots with different characters, different perspectives, different language or different themes is an end our intellectual property laws should discourage. The re-use of themes over the ages that permeates literature shows this contention to be wrong.

The attempt to patent plot also reveals a misunderstanding of the objects of patent law. It is an attempt to expand the bounds of patentable subject to infringe upon ideas that rightly exist within the public domain. Protection of the commons remains one of the goals of intellectual property law. In the same way that copyright does not protect mere ideas, nor does patent law and nor should it. Knight's argument that patent law should supplement copyright is flawed for this

reason. If a writer is able to conceive of new plots but unable to write them, that is an unfortunate situation but not one that the law ought to be contorted to accommodate.