# Themes in intellectual property

# Preliminary thoughts

This book is not only about ideas: it is about ideas skilfully expressed in writing, in music, or in a sculpture. It is about the bright idea for an invention, the details of which have been worked out and which takes the form of a product or a process that can be applied industrially. It is also about a logo or name applied to products in order to distinguish them from other products in the same category and to indicate their origin. It is also about clothes and exhaust pipes made to a new design. Intellectual property is more than a reward for inventors and creators on the basis of a bright idea.

We will investigate this further on all other pages of this book, but let us start with a down-to-earth overview of the plot of our story. The background is a concert given by a famous opera singer. His performance consists of songs taken from various operas. The lyrics and music of each of these songs can attract copyright protection for its author; the opera singer will have a right in his performance of them. A live recording is made and published on compact disc (CD), and the concert is beamed around the world as a satellite broadcast—two further occasions on which copyright interests arise. Copyright issues also arise when a clip of the concert is posted on the Internet on YouTube. Satellite technology involves various patented inventions both in relation to the missile technology and in relation to the transmission of broadcasts. The CD will bear the logo of the record company, which allows customers to distinguish the CD from that of another record company. It is most likely that the record company will have secured a trade mark for its logo to guarantee its exclusive right to use it. The CD's accompanying booklet raises copyright issues, because it contains a photograph in which the star is pictured standing next to a sculpture made by his wife. The photograph, the sculpture, and the text of the booklet can all be protected by copyright. T-shirts bearing the star's picture are of a different style, but allow him to merchandise his image and to benefit from his celebrity status.

By the time we have unravelled all of the intellectual property aspects of this concert—or at least the legal provisions underlying them—we will have reached the final page of our book. This example provides, however, a first impression of what intellectual property means in practice and alerts the reader to the intellectual property aspects of many elements of our everyday lives.

In a schematic way one could argue that within intellectual property six main rights can be distinguished, most of which surfaced in the concert example given.

Copyright protects literary and artistic works, such as writings, drawings, and music, by granting the right holder the exclusive right to reproduce the work and to communicate it to the public.

Related rights are essentially related to copyright, as they protect the performers, producers of phonograms, and broadcasters. Often these are rights in the performance of copyright works.

Patents cover technological inventions and grant an exclusive right in the making of the patented product or the use of the patented process.

Trade marks are essentially signs that are attached to products and services to distinguish them from identical goods or services from a different origin. Distinctiveness as to origin is a key concept for trade mark law, even if trade marks are also important marketing and advertising tools.

And finally one could add two types of designs to the example. Costumes for the performance are made to a specific design and some of the equipment used on stage has a functional design.

Registered designs play a role in protecting aesthetic designs by granting an exclusive right in them and (unregistered) design rights are available to protect functional designs.

### Introduction

In recent years, intellectual property has attracted a lot of attention. Its importance for international trading relations was emphasized during the negotiations that led to the successful conclusion of the General Agreement on Tariffs and Trade (GATT)<sup>1</sup> Uruguay Round on the world trading system. The GATT Trade-Related Aspects of Intellectual Property Rights (TRIPS) initiative, which led eventually to the Agreement on Trade-Related Aspects of Intellectual Property Rights 1994 that was signed in Marrakesh,<sup>2</sup> was sparked off by a strong desire to eradicate international counterfeiting and piracy. It became clear at a very early stage, however, that the cure for the fake Gucci or Cartier watch, Lacoste shirt, or even counterfeited fire extinguishing system in a jet engine for a passenger plane<sup>3</sup>—or for what is often described as a plague threatening (among other things) the worldwide exploitation of intellectual property—also required a harmonization of national intellectual property laws.<sup>4</sup> It is much easier to evadicate counterfeits at source, with a common set of minimum protection rules, than efterwards, at a national border once they are in circulation.<sup>5</sup>

- <sup>1</sup> The General Agreement on Tariffs and Trade—basically, the world free-trading system—which, as a structure and organization, was succeeded by the World Trade Organization (WTO) as a result of the Uruguay Round of trade negotiations.
- <sup>2</sup> The final text of the TRIPS Agreement was published in (1994) 33 ILM 1197 and in (1994) 25 IIC 209. The agreement is administered by the WTO, which succeeded to GATT. See D. Gervais (2012) *The TRIPS Agreement: Drafting History and Analysis*, 4th edn, London: Sweet and Maxwell; C. Correa (2007) *Trade-Related Aspects of Intellectual Property Rights: A Commentary on the TRIPS Agreement*, Oxford: Oxford University Press. See <a href="http://www.wto.org/english/docs\_e/legal\_e/legal\_e.htm#TRIPs">http://www.wto.org/english/docs\_e/legal\_e/legal\_e.htm#TRIPs</a> and <a href="http://www.wto.org/english/tratop\_e/trips\_e/trips\_e.htm">http://www.wto.org/english/tratop\_e/trips\_e/trips\_e.htm</a>.
  - <sup>3</sup> See M.-C. Piatti, 'Measures to Combat International Piracy' [1989] 7 EIPR 239, 239-40.
- <sup>4</sup> See K. Thomas (2007) 'The Fight against Piracy: Working within the Administrative Enforcement System in China', in P. Torremans, H. Shan, and J. Erauw (eds.), *Intellectual Property and TRIPS Compliance in China: Chinese and European Perspectives*, Cheltenham/Northampton, MA: Edward Elgar, pp. 85–106.
- <sup>5</sup> See the comments on the current debate between Europe and China in P. Torremans et al. (2007), esp.: G. Shoukang and Z. Xiaodong, 'Are Chinese Intellectual Property Laws Consistent with the TRIPS Agreement?', pp. 11–28; P. Torremans, 'Substantive Law Issues in Europe a Decade after TRIPS', pp. 29–61.

At European level, the realization of the single market gave rise to a series of initiatives in the intellectual property area. Harmonization directives—for example, that on the harmonization of the duration of the term of copyright protection<sup>6</sup> and the Trade Mark Directive<sup>7</sup>—were coupled with moves towards a set of truly European intellectual property rights<sup>8</sup> and Community responses to the computer industry's perceived need for adequate protection.<sup>9</sup> UK legislation was updated as a result of a number of these developments and we have also seen the further development of, for example, the tort of passing off, and the protection offered to the merchandising activities involving real and fictitious characters, to fill the gaps not covered internationally—for example, goodwill, characters, and information.

Due in part to these developments, the various intellectual property rights have become relatively well known, as we saw already when we started with some preliminary thoughts:

- (a) trade marks;
- (b) patents;
- (c) copyright;
- (d) rights in performances;
- (e) registered designs;
- (f) design rights.

Let us add some more examples to our concert example already discussed. Intellectual property addresses problems such as how the CD system, as a technological invention, is temporarily protected by patents, how the aes betic appearance of a telephone in the shape of a golf caddy can be protected as a registered design, and whether the functional design of kitchen utensils can attract (unregistered) design protection. We could also use intellectual property laws to examine how the registration of the trade mark 'Sprite' by the Coca-Cola Company for its lemon-taste soft drink is linked to the fact that it allows consumers to identify the drink and to distinguish it from similar soft drinks; how such a trade mark is protected against imitation, how copyright grants and protects certain rights in literary, artistic, and musical creations; and which rights exist in performances. Other related areas that equally we will have to consider include the laws of confidence and passing off. These

<sup>&</sup>lt;sup>6</sup> Directive 93/98 harmonizing the term of protection of copyright and certain related rights (1993) OJ L 290/9, now codified as Directive 2006/116/EC of the European Parliament and of the Council of 12 December 2006 on the term of protection of copyright and certain related rights (codified version) [2006] OJ L 372/12.

 $<sup>^7</sup>$  Directive 89/104 on the approximation of the laws of Member States relating to trade marks (1989) OJ L40/1, now codified as Directive 2008/95/EC of the European Parliament and of the Council of 22 October 2008 to approximate the laws of the Member States relating to trade marks [2008] OJ L 299/25.

 $<sup>^8</sup>$  E.g. the Community Trade Mark—see Council Regulation 40/94 on the Community Trade Mark (1994) OJ L11/1, (EC) 40/94 (1994) OJ L 11/1, now codified as Council Regulation (EC) 207/2009 of 26 February 2009 on the Community trade mark [2009] OJ L78/1—and the Community Design—see Council Regulation 6/2002 on Community Designs (2002) OJ L3/1.

<sup>&</sup>lt;sup>9</sup> See e.g. Directive 91/250 on the legal protection of computer programs (1991) OJ L122/42, now codified as Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs [2009] OJ L 111/16, and Directive 96/9 on the legal protection of databases (1996) OJ L77/20.

form an essential national addition to the types and level of protection provided on the basis of international conventions.

# A brief historical overview-the origins

When we refer to 'intellectual property rights,' we do not wish to make the distinction between industrial intellectual property rights—such as patents and trade marks—and artistic intellectual property rights—such as copyright. This distinction appears no longer to be valid, because copyright is now used in such a flexible way—for example, to protect computer programs—that it can no longer be called an exclusively artistic right. The same concepts underlie each type of intellectual property. A strong form of unity exists between all types of intellectual property and the common law concepts in use in this area. But this dichotomy between 'industrial' patents and 'artistic' copyright has been an essential element in the historical development of the protection of what we call 'intellectual property'. Before we try to define this term and to justify the continuing existence of intellectual property rights, let us have a brief look at the historical roots of our topic.

# The origin and the evolution of the patent system

Patents can be traced back as far as the end of the Middle Ages.<sup>10</sup> Inventor privileges—which, in England, took the form of royal grants under the royal prerogative—were granted all over Europe. Although not altogether absent, the idea of the promotion of inventive activity through the grant of a market monopoly was strongly overshadowed by the idea that these privileges were the perfect tool with which to reward political creditors and to give them a trading monopoly granted by letters patent.

In England, Parliament reacted against this practice and, in 1624, the Statute of Monopolies was issued. It was primarily a response to the existing practice and the trading monopolies to which this practice gave rise, but it was also influenced by the idea that, in certain circumstances, a market monopoly would be necessary as an incentive to innovate. The result of this influence is found in s. 6 of the Statute of Monopolies: the 'true and first inventor' was granted a patent monopoly for 14 years upon 'any manner of new manufacture'.

Because England felt that France and Holland were further advanced in their technical development, any person who imported new technologies with a view to establishing an advanced domestic industry was equally considered to be an inventor. The flexibility on this point emphasizes that this new patent system should be seen as a deliberate act of economic policy. <sup>11</sup> By rewarding, eventually, both devisors and importers of new technologies, the development of industrial activity, growth, and employment emerges as the primary aim of the legislation; gratitude towards the inventor is only of secondary importance. The

<sup>&</sup>lt;sup>10</sup> See also R. Miller, G. Burkill, C. Birss, and D. Campbell (2011) *Terrell on the Law of Patents*, 17th edn, London: Sweet and Maxwell, pp. 3–10.

<sup>&</sup>lt;sup>11</sup> See B. Dölemeyer, 'Einführungsprivilegien und Einführungspatente als historische Mittel des Technologietransfers' [1985] GRUR 735. This German article is the best source for this view.

policy aspect is reinforced by the provision that manufactures that are 'contrary to the law or mischievous to the state, by raising prices of commodities at home, or hurt trade, or generally inconvenient' would not be protected. Only those manufactures that fit in with the policy would be protected, because the realization of the aims of the policy was the ultimate reason for the existence of the patents.

These early developments represent only the start of a long development process wherein the Industrial Revolution in Europe was the key element. The eighteenth century saw the development of the patent specification, first as a tool with which to define the content of the protected invention against infringers by means of a statement enrolled with the Court of Chancery and, later, in the modern sense, as a source of technical information provided by the patentee as consideration for the monopoly granted to him by the patent. The novelty concept, which corresponded previously to the fact that the invention was not yet practised in the country, was enlarged to incorporate also the question of whether the trading community already knew of the invention through publication.

The Patent Law Amendment Act 1852 removed the inefficiencies and uncertainties in the procedures for securing a patent. The applicant could register his specification with the Commissioners of Patents, with an option to file a provisional application up to one year before the complete specification was worked out and filed. Patents were granted simply upon registration and at a reasonable fee. This led to an increase in the number of patents, some of which were of dubious value due to the absence of any examination of the applications.

The Patents, Designs and Trade Marks Act 1883 addressed the problems arising from the inadequacy of the patent litigation procedures. A single judge replaced the juries and patentees were obliged to delineate the scope of their monopoly in at least one of their claims; even more important, however, was the replacement of the Commissioners by the Patent Office, charged with the examination of the patent applications. In a first stage, the Office examined whether the formal requirements and the requirement that the patentee should provide a proper description of the patent had been observed. An examination of the novelty of the application, based on a search of previous British specifications, was added to the examination process from 1905 onwards. This change clearly demonstrates how strongly the origins of intellectual property are linked with—and their evolution is a response to—commercial recessities.

All over Europe and in North America, specific patent legislation was introduced at national level in the course of the nineteenth century. As a similar evolution took place in all of these countries and because the technology that was being developed was not only to be used in the country in which it was developed, a need for international cooperation arose. In 1883, the Paris Convention for the Protection of Industrial Property was created as the basic instrument for international patent protection. <sup>14</sup> It provides minimal rules of protection, which have been translated into the national patent legislation. In addition, it contains a rule of national treatment that provides that foreign inventors shall be treated in the same way as their domestic counterparts and that their inventions shall be granted the same level of protection. <sup>15</sup>

<sup>&</sup>lt;sup>12</sup> See Statute of Monopolies 1624, s. 6. <sup>13</sup> See Patents Act 1902.

<sup>&</sup>lt;sup>14</sup> See F. K. Beier, 'The Significance of the Patent System for Technical, Economic and Social Progress' [1980] IIC 563, 570.

<sup>&</sup>lt;sup>15</sup> Art. 2 of the Paris Convention.

The development of the first half of the twentieth century can be characterized as a consolidation effort at legal and organizational levels. The new phenomenon of the vast number of newly independent states created a crisis in the patent system in the early 1960s: a flood of patent applications had to be dealt with independently by an ever-growing number of national patent offices; international and regional cooperation was seen as the solution. There were attempts to arrive at regional patent systems, <sup>16</sup> and treaties providing assistance and combating the seemingly endless duplication of the examination procedures (such as the global Patent Co-operation Treaty)<sup>17</sup> were established during this period. Another problem that newly independent states faced—especially in the developing world—was the inappropriateness for their purposes of the existing patent legislation. The adoption of new patent laws in these countries and the reform of the international patent system to this new environment are processes that have not yet been concluded.<sup>18</sup>

### The origin and evolution of trade marks

The use of marks that are added to goods to distinguish them from similar goods has a history of at least 2,000 years: the Romans embossed their pottery, or impressed it with a mark, and merchants have used marks ever since to distinguish their goods. Although the courts became involved in the actions against infringers, <sup>19</sup> no proper trade mark legislation was enacted and the system was, for a long time, based purely on common law principles. The main problem that traders faced was that, each time they orought an infringement action, they had to prove their title to the mark. This depended on the existence of an established reputation associated with the mark.

In France, this problem had been solved by the introduction of a registration system and a similar registration system was introduced in England, in 1875, under the Trade Marks Registration Act.<sup>20</sup> UK trade mark legislation was consolidated by the Patents, Designs and Trade Marks Act 1883—the same year in which the Paris Convention was signed. The principles contained in this Convention apply to trade marks as well as to patents.<sup>21</sup>

The next step in the consolidation process was the statutory definition of the term 'trade mark' in the Trade Marks Act 1905. This was followed, in the Trade Marks Act 1919, by the division of the register into Part A—within which stringent requirements were coupled with better protection in terms of remedies—and Part B. The Trade Marks Act 1938 was based on the same principles, but the drafting was more detailed. It was amended by the Trade Marks (Amendment) Act 1984 to also include service marks. Although the division of the register into two parts was abolished by the Trade Marks Act 1994, the UK system still retains an examination stage before the mark is registered.

<sup>&</sup>lt;sup>16</sup> E.g. the Nordic Patent System and the European Patent Convention. <sup>17</sup> See Ch. 2.

<sup>&</sup>lt;sup>18</sup> See, most recently, the Patent Law Treaty (Geneva, 2000) as an attempt to harmonize procedures before the national patent offices. The UK has signed the Treaty and, in relation to the UK, it entered into force on 22 March 2006. As yet, only a limited number of states have ratified it (32 at the time of writing).

 $<sup>^{19}\,</sup>$  See Sykes v. Sykes (1824) 3 B & C 541, a case that contains some basic principles: e.g. damages at common law, deceit.

<sup>&</sup>lt;sup>20</sup> For a comprehensive overview of the historical development of the law of trade marks (and passing off), see C. Morcom, A. Roughton, and S. Malynicz (2008) *The Modern Law of Trade Marks*, 3rd edn, London: Lexis Nexis, Ch. 1.

<sup>&</sup>lt;sup>21</sup> Paris Convention.

# The origin and the evolution of the copyright system

We have seen that, at international level, many of the principles applied to patents are equally applied to trade marks. <sup>22</sup> This is not always the case for copyright, however.

Copyright is historically linked to written literary works. Because handwritten copies were such a formidable investment of time and effort, few copies were made available and plagiarism was not a problem. All this changed when Gutenberg invented movable type and Caxton developed the printing press in the second half of the fifteenth century. The arrival of this technology made the printing of multiple copies possible, quickly and at relatively little expense.<sup>23</sup>

Stationers acquired the works from their authors, and organized the printing and the sale of these works. These entrepreneurs took the commercial risks involved in exploiting the works of the authors and they wanted exclusive rights in the publication of the works to protect them against copiers. They found an ally in the Crown, which wanted to control the importation and circulation of books. The stationers organized themselves into a guild and the Crown granted the Stationers' Company a charter in 1556. Lawfully printed books were entered in the Company's register and, because the right to make an entry in the register was reserved for the stationers, this system effectively amounted to a licensing system and secured a printing monopoly for the Company members. On ten of that, members were granted powers to act against infringing copies.

This system remained in place until the end of the seventeenth century, at which point there was a brief period of anarchy. This period was, however, followed by the first real copyright statute: the Statute of Anne 1709.<sup>24</sup> It gave the 'sole right and liberty of printing books' to authors and their assignees. There was, however, no shift from an entrepreneurial copyright to an author's right, with emphasis exclusively on literary creation and its creators: under the Statute of Anne, the emphasis remained focused on the commercial exploitation of books. Printers and booksellers were explicitly named among the author's assigns.<sup>25</sup> Their right started from first publication and lasted for 14 years, but it was only enforceable by seizure and penalties if the title of the book had been registered with the Stationers' Company before publication.<sup>26</sup> Before publication, the author could rely on certain common law right's of literary property to obtain protection against unauthorized copying<sup>27</sup> and, if the author was still alive on expiry of the term of protection of 14 years, the right was 'returned' to him for another 14 years.

At the end of the eighteenth and during the nineteenth centuries, the duration of the term of copyright protection was gradually increased; simultaneously, the scope of copyright was widened to include types of work other than literary works. Engravings, prints, lithographs, sculptures, and dramatic and musical works all received copyright protection

<sup>&</sup>lt;sup>22</sup> Industrial designs are also found in this category.

<sup>&</sup>lt;sup>23</sup> The history of copyright has been analysed in detail by R. Deazley (2004) On the Origin of the Right to Copy: Charting the Movement of Copyright Law in Eighteenth-Century Britain (1695–1775), Oxford: Hart; R. Deazley (2006) Re-Thinking Copyright: History, Theory, Language, Cheltenham/Northampton, MA: Edward Elear.

<sup>&</sup>lt;sup>24</sup> See L. Bently, U. Suthersanen, and P. Torremans (eds.) (2010) Global Copyright: Three Hundred Years since the Statute of Anne, from 1709 to Cyberspace, Proceedings of the ALAI Congress London 2009, Cheltenham/ Northampton MA: Edward Elgar, Chs. 1–5.

<sup>&</sup>lt;sup>25</sup> See Statute of Anne 1709, s. 1. <sup>26</sup> See Statute of Anne 1709, ss. 1 and 2.

<sup>&</sup>lt;sup>27</sup> Donaldson v. Beckett (1774) 2 Bro P C 129, 4 Burr 2408.

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during that period. But drama and music did not fit in well with the existing 'copy-right'—that is, the right to produce copies of the work and to prevent others from doing so—because their exploitation was more likely to involve performances, rather than the sale of printed copies. As a consequence, playwrights and composers sought a 'use' right, and a performing right for dramatic works was created in 1833<sup>28</sup> and extended to musical works in 1842.<sup>29</sup>

The British emphasis on the entrepreneurial exploitation aspect of copyright was not shared by those who saw copyright almost exclusively as the expression of reverence for the creating artist and his act of artistic creation. The latter tendency was particularly strong in France and Belgium, as illustrated by the use of the term *droit d'auteur*—that is, 'author's right'—rather than a 'copy' right. As a major exporter of copyright material, Britain had an important interest in a compromise that secured at least some form of copyright protection abroad. The approach taken bears strong similarities to the contemporary evolution regarding patents: the Convention for the Protection of Literary and Artistic Works was signed in Berne in 1886.<sup>30</sup> From that moment on, a personal connection between the author and a member state of the Berne Union, or first publication of the work in a member state of the Union, was sufficient for protection in all member states on a nation a treatment basis.

When the Convention was revised in 1908, it was felt that there was a need to agree on further minimal rules. Copyright protection was no longer to depend upon registration or any other formality, but upon the act of creation of the work, and the term of copyright protection would last for at least the author's life plus 50 years. When these changes were incorporated into the Copyright Act 1911, it signalled the end for the Stationers' Company. The 1911 Act also widened the scope of copyright further. The producers of sound recordings were granted the exclusive right to prevent unauthorized reproductions of their recordings. Significantly, this right was not given to the performing artist, but to the entrepreneur involved. The right was also labelled 'copyright', but the *droit d'auteur* tradition would instead distinguish it as a neighbouring right, because it does not directly protect the original artistic creation of the author; the work protected is derived only from the author's original artistic creation.

This right in sound recordings was an important precedent. It indicated that copyright would be flexible enough to offer protection to all works in whose creation new technical possibilities for artistic expression had been used. The Copyright Act 1956 granted protection on a similar basis in cinematograph films, broadcasts, and the typographical format of published editions.

At international level, the developing countries advocated major changes to the Berne Convention during the 1960s. The Stockholm 1967 and Paris 1971 Revisions of the Berne Convention granted, in the end, only minimal concessions with a lot of strings attached: they allow only certain translations and publications of foreign works if these are not otherwise

<sup>&</sup>lt;sup>28</sup> Dramatic Copyright Act 1833.

<sup>&</sup>lt;sup>29</sup> Literary Copyright Act 1842, s. 20.

<sup>&</sup>lt;sup>30</sup> For a full account of the history of the Berne Convention and the Berne Union, see S. Ricketson (1987) *The Berne Convention for the Protection of Literary and Artistic Works: 1886–1986*, London: Kluwer Law International, Ch. 1; S. Ricketson and J. C. Ginsburg (2006) *International Copyright and Neighbouring Rights: The Berne Convention and Beyond*, vol. I, Oxford: Oxford University Press, Ch. 1.

<sup>&</sup>lt;sup>31</sup> Copyright Act 1911, s. 19(1). The courts later held that the producers could also prevent public performances of their recordings: *Gramophone Co. v. Cawardine* [1934] Ch 450.

made available.<sup>32</sup> In a separate development, performing artists have been granted certain rights. The Convention on the Protection of Performers, Producers of Phonograms and Broadcasting Organizations was signed in Rome in 1961. Under the provisions of this Convention, performers have the right to prevent the fixation or the broadcasting of their live performances.<sup>33</sup> The makers of records can prevent the reproduction of their records,<sup>34</sup> and broadcasting organizations can control the rebroadcasting and the public performance for an entrance fee of their broadcasts.<sup>35</sup> The Rome Convention has, unfortunately, never reached the same level of adherence between nations as did the Berne Convention.<sup>36</sup> A second Phonograms Convention, which deals with mutual protection against the unauthorized commercial copying of sound recordings, was signed in 1971. In the UK, these international provisions have been translated into the Copyright, Designs and Patents Act 1988, mainly as Part II: Rights in Performances.<sup>37</sup>

#### No absolute divide between patents and copyright

This brief historical overview of the development of patent and copyright law<sup>38</sup> clearly demonstrates that the divide between patents—as purely industrial rights—and copyright—as a purely artistic right—was never absolute in nature. Especially in the UK, copyright always had an entrepreneurial, almost industrial, orientation. Copyright was never an exclusively artistic right, as opposed to the other industrial property rights. In recent years, this tendency has been emphasized by the use of copyright to protect computer programs. It is, however, true that copyright is different from the other rights: patents protect the invention, while copyright protects not only the creation. But also grants some strong, additional, personal rights to the creator.

These moral rights have always been an essential aspect of the French *droit d'auteur* and, in the UK, they were incorporated in their own right for the first time in the Copyright, Designs and Patents Act 1988.<sup>39</sup> Each right is an intellectual property right, but each right has its own characteristics. Before examining each right in detail, we will try to define the term 'intellectual property' and we will also examine whether the continued existence of 'intellectual property rights' can be justified.

- <sup>32</sup> For more details, see the appendix to the Berne Convention upon which agreement was reached at the Paris revision conference (1971). The text of this instrument can be found on the website of the World Intellectual Property Organisation (WIPO) at <a href="http://www.wipo.int/treaties/en/ip/berne/trtdocs\_wo001.html">http://www.wipo.int/treaties/en/ip/berne/trtdocs\_wo001.html</a>>.
  - <sup>33</sup> See Rome Convention, Arts. 7–9. The same right does not exist in relation to recorded performances.
  - <sup>34</sup> See Rome Convention, Arts. 10–12.
- <sup>35</sup> See Rome Convention, Art. 13. They cannot, however, control the diffusion by wire or by cable of their broadcasts
- <sup>36</sup> Hopefully, the World Intellectual Property Organization (WIPO) Performances and Phonograms Treaty that was signed in Geneva in 1996, and entered into force in May 2002, will be more successful. The text of this Treaty is available at <a href="http://www.wipo.int/treaties/en/ip/wppt/trtdocs\_wo034.html">http://www.wipo.int/treaties/en/ip/wppt/trtdocs\_wo034.html</a>>.
- <sup>37</sup> Before the Copyright, Designs and Patents Act 1988 came into force, the Performers' Protection Acts 1958–72 offered some protection to performing artists, but the level and the type of that protection were unsatisfactory.
- <sup>38</sup> More details can be found in K. Garnett, G. Davies, and G. Harbottle (2011) *Copinger and Skone James on Copyright*, 16th edn, London: Sweet and Maxwell, pp. 34–56.
  - <sup>39</sup> Copyright, Designs and Patents Act 1988, Pt I, Ch. 4, ss. 77–89.

# A definition and a justification of intellectual property

Intellectual property rights are, first, property rights<sup>40</sup>—but, secondly, they are property rights in something intangible; finally, they protect innovations and creations, and reward innovative and creative activity.<sup>41</sup>

### **Property rights**

The essential characteristic of property rights is that they are exclusionary rights through which third parties are prohibited from the use and exploitation of the subject precluded by these rights. Through property rights, externalities can be internalized that is, the subject of the right is brought under the control of the owner of the property right. These rights will only develop when the cost of this internalization is smaller than the gains to which it leads.

If we take a bicycle as an example of an item of tangible property, it is immediately clear that the owner of the bicycle has the exclusive right to use the bicycle, and that such a monopolistic right in real and personal property is conceded almost naturally. Property rights in items such as our bicycle developed because nobody would be prepared to invest time, materials, and skills in designing and producing bicycles if he or she would have no right in the result of the process that would enable him or her to benefit from that work. The most obvious way in which to do so is to sell the bicycle—but few would wish to acquire the bicycle should they be unable to acquire the exclusive right to its use. The nature of the object gives this right a monopolistic character, if someone uses the bicycle, no one else can use it. The physical nature of the unique embodiment of certain limited resources in the bicycle automatically leads to a particular competitive exclusionary effect. 47

- <sup>40</sup> See in more detail U. M. Itei and A. Pradi (2007) 'Property Rights: A Comparative law and Economics Perspective in the Global 'Fra', in D. Porrini and G. Ramello (eds.), *Property Rights Dynamics: A Law and Economics Perspective*, Roudedge, pp. 40–53 and for a law and economics justification of intellectual property rights see W. M. Landes and R. A. Posner (2003), *The Economic Structure of Intellectual Property Law*, Harvard University Press.
  - <sup>41</sup> US Council for International Business (1985) A New MTN: Priorities for Intellectual Property, p. 3.
- <sup>42</sup> See M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 530.
- <sup>43</sup> An externality is an economic situation in which an individual's pursuit of his or her self-interest has positive or negative spillover effects on the utility or welfare of others. It can be seen as a market failure and, in this context, a property right is a tool used to correct such a market failure: see R. Ekelund and R. Tollison (1986) *Economics*, Boston, MA: Little, Brown and Co., pp. 404–5.
- <sup>44</sup> H. Demsetz, 'Toward a Theory of Property Rights' (1967) 57 American Economy Review 347, 350; for an overview of the property rights theory, see R. Cooter and T. Ulen (1988) *Law and Economics*, New York: HarperCollins, esp. Ch. 4, but also Ch. 5.
- $^{45}$  At most, they would design and produce one bicycle to get from A to B themselves, but even that cannot be taken for granted in a situation in which no property rights exist.
  - <sup>46</sup> The difference is that between 'my bicycle' and 'bicycles as a concept'.
- $^{47}\,$  M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 531.

#### Intangible property rights

In this respect, intellectual property rights are fundamentally different from rights in tangible property. The nature of the property that is the subject of the right and which is protected does not necessarily lead to competitive exclusionary effects. Concurrent uses of inventions by a number of manufacturers, including the patentee, or simultaneous performances of a musical are possible. <sup>48</sup> The invention and the musical will not perish, nor will any use or performance lessen their value.

The subject matter of intellectual property rights—that is, inventions or creations—has a link with knowledge and ideas. In economic terms, this subject matter constitutes a public asset and its use is not, by its nature, individually appropriable. <sup>49</sup> In many cases, imitation is even cheaper than invention or creation. <sup>50</sup> The competitive exclusion only arises artificially when a legally binding intellectual 'property' right is created as an intangible property right. This gives the inventor or the creator—the owners of the intangible property right—the exclusive use of the invention or the creation.

# An economic justification<sup>51</sup>

#### Market failure and freeriders

So why are these intangible property rights created? Economists argue that, if everyone were to be allowed to use the results of innovative and creative activity freely, the problem of the 'freerider'<sup>52</sup> would arise.<sup>53</sup> No one would invest in innovation or creation, except in a couple of cases in which no other solution were available,<sup>54</sup> because to do so would put them at a competitive disadvantage.<sup>55</sup> All competitors would simply wait until someone else made the investment, because they would then be able to use the results without having invested that money in innovation and creation, and without having taken the risk that the

- <sup>48</sup> Lehmann, 'The Theory of Property Rights' (n. 47 above) at 531.
- <sup>49</sup> H. Ullrich, 'The Impo, 'ance of Industrial Property Law and other Legal Measures in the Promotion of Technological Innovation [1):89] Industrial Property 102, 103.
- <sup>50</sup> See E. Mansfield, M. Schwartz, and, S. Wagner, 'Imitation Costs and Patents: An Empirical Study' [1981] Economic Journal 907.
- <sup>51</sup> We will approach the justification issue from the point of view of the developed countries. The international transfer of technology and the different level of development in developing countries present additional problems: see e.g. P. Braga 'The Economics of Intellectual Property Rights and the GATT: A View from the South' [1989] Vand J Transnat'l L 243.
- <sup>52</sup> See R. Benko (1987) Protecting Intellectual Property Rights: Issues and Controversies, Washington DC: American Enterprise Institute, p. 17.
- <sup>53</sup> Inappropriability—the lack of the opportunity to become the proprietor of the results of innovative and creative activity—causes an under-allocation of resources to research activity, innovation, and creation: see K. Arrow (1962) 'Economic Welfare and the Allocation of Resources for Invention', in National Bureau for Economic Research, *The Rate and Direction of Inventive Activity: Economic and Social Factors*, Princeton, NJ: Princeton University Press, pp. 609–25.
- <sup>54</sup> E.g. a case in which the existing technology is completely incapable of providing any form of solution to a new technical problem that has arisen.
- $^{55}\,$  See H. Ullrich, 'The Importance of Industrial Property Law and other Legal Measures in the Promotion of Technological Innovation' [1989] Industrial Property 102, 103.

investment might not result in the innovative or creative breakthrough at which it aimed.<sup>56</sup> The cost of the distribution of the knowledge is relatively insignificant.<sup>57</sup>

As a result, it is argued, the economy would not function adequately, because innovation and creation are essential elements in a competitive free market economy. From this perspective, innovation and creation are required for economic growth and prosperity.<sup>58</sup> Property rights should be created if goods and services are to be produced, and used, as efficiently as possible in such an economy.<sup>59</sup> The knowledge that they will have a property right in the results of their investment will stimulate individuals and enterprises to invest in research and development,<sup>60</sup> and these property rights should be granted to those who will economically maximize profits.<sup>61</sup> It is assumed that the creator or inventor will have been motivated by the desire to maximize profits—either by exploiting the invention or creation him- or herself, or by having it exploited by a third party—so the creator or inventor is granted the rights.<sup>62</sup>

This argument applies as well to intangible property rights such as patents, which determine the value of an item in a direct way, as it does to rights such as trade marks, which do so only indirectly through their use as a means of communication.<sup>63</sup>

### **Exclusivity and perfect competition**

But how does such a legally created, monopolistic, exclusive property right fit in with the free market ideal of perfect competition? At first sight, every form of monopoly might seem to be incompatible with free competition, but we have already demonstrated that some form of property right is required to enhance economic development: competition can only play its role as market regulator if the products of human labour are protected by property rights. <sup>64</sup> In this respect, the exclusive monopolistic character of the property rights is

- <sup>56</sup> One might advance the counter-argum ent that inventions and creations will give the innovator an amount of lead time and that the fact that it will take imitators some time to catch up would allow the innovator to recuperate his or her investment during the interim period. In many cases, however, this amount of lead time will only be a short period—too short to allow the innovator to recuperate the investment in full and make a profit. See also E. Mansfield, M. Schwartz, and, S. Wagner, 'Imitation Costs and Patents: An Empirical Study' [1981] Economic Journal 907, 915 of seq.
- <sup>57</sup> See R. Benko (1987) *Protecting Intellectual Property Rights: Issues and Controversies*, Washington DC: American Enterprise Institute, p. 17.
- <sup>58</sup> Benko (1987) *Protecting Intellectual Property Rights* (n. 57 above), Ch. 4, p. 15; US Council for International Business (1985), p. 3.
- <sup>59</sup> See B. Pretnar, 'The Economic Impact of Patents in a Knowledge-Based Market Economy' (2003) 34 IIC 887; E. Mackaay (2007) 'The Economics of Intellectual Property Rights in Civil Law Systems', working paper received from the author.
- 60 P. Lunn, 'The Roles of Property Rights and Market Power in Appropriating Innovative Output' [1985] J Legal Stud 423, 425.
- <sup>61</sup> M. Lehmann, 'Property and Intellectual Property: Property Rights as Restrictions on Competition in Furtherance of Competition' [1989] IIC 1, 11.
- <sup>62</sup> For an economic–philosophical approach, see also E. Mackaay (1991) 'Economic and Philosophical Aspects of Intellectual Property Rights, in M. Van Hoecke (ed.) *The Socio-Economic Role of Intellectual Property Rights, Brussels: Story-Scientia*, pp. 1–30.
- <sup>63</sup> See M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 531.
- $^{64}$  M. Lehmann, 'Property and Intellectual Property: Property Rights as Restrictions on Competition in Furtherance of Competition' [1989] IIC 1, 12.

coupled with the fact that these rights are transferable. These rights are marketable: they can, for example, be sold as an individual item. It is also necessary to distinguish between various levels of economic activity, as far as economic development and competition are concerned. The market mechanism is more sophisticated than the competition–monopoly dichotomy. Competitive restrictions at one level may be necessary to promote competition at another level.

Three levels can be distinguished: production, consumption, and innovation, as demonstrated in Figure 1.1. Property rights in goods enhance competition on the production level, but this form of ownership restricts competition on the consumption level. One has to acquire the ownership of the goods before one is allowed to consume them and goods owned by other economic players are not directly available for one's consumption. In turn, intellectual property imposes competitive restrictions on the production level: only the owner of the patent in an invention may use the invention and only the owner of the copyright in a literary work may produce additional copies of that work. These restrictions benefit competition on the innovative level. The availability of property rights on each level guarantees the development of competition on the next level.

Property rights are a prerequisite for the normal functioning of the market mechanism. To take the example of patents: 'patents explicitly prevent the diffusion of new technology to guarantee the existence of technology to diffuse in the future'. Trade marks, meanwhile, distinguish identical goods or services of different sources. They increfore allow the consumer to distinguish between such products and services, and grant the right holder the exclusive right to apply the mark to the goods and services for which it has been registered. In doing so, trade marks enable competition between producers of identical goods or services. They therefore encourage the availability of a wider variety of goods and services between which the consumer can distinguish, by means of the trade mark, in terms of quality, price, etc.

This clearly demonstrates that it is not correct to see intellectual property rights as monopolies that are in permanent conflict with the fundamental rule of free competition. Free competition can only exist, and a market economy can only flourish, when certain restrictions in furtherance of competition are accepted. Intellectual property rights are necessary to achieve this. The main problem is that this only justifies the existence of exclusive property rights as the result of innovative activity. The particular form that intellectual property rights have taken in a particular national intellectual property statute—and, even more, the way in which these rights are used and exercised—are not automatically justified by this theory. The restrictions on competition are only justified in so far as they are restrictions in furtherance of competition on the next level, which is either the production level or the innovation level; any restriction that goes further hinders the optimal functioning of the market economy. It is the task of the provisions on competition law to regulate this system in such a way that this optimal level of functioning is achieved and maintained. This coexistence of intellectual property and the rules on free competition is a permanent balancing act, and one of the most challenging and interesting parts of the study of intellectual property.

<sup>65</sup> M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 539.

<sup>&</sup>lt;sup>66</sup> R. Benko (1987) *Protecting Intellectual Property Rights: Issues and Controversies*, Washington DC: American Enterprise Institute, Ch. 4, p. 19.

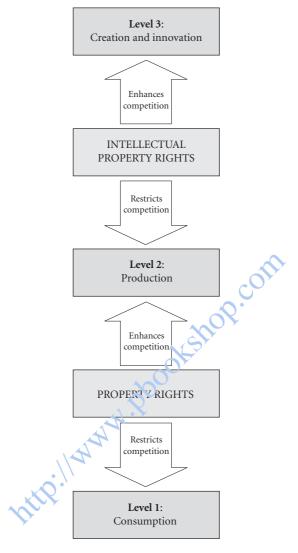


Figure 1.1 A justification of IP rights

If we focus on patents for a moment, in order to go into a bit more detail, we have to start from the premise that the economic justification does not give us ready-made rules on every aspect of patent law. Instead, we are confronted with a constant, built-in dialectic tension between the protection of the patented—that is, already realized—innovation and the promotion of subsequent innovation.<sup>67</sup> The strongest possible protection is therefore not only not a logical consequence of the economic justification, but would also unduly

 $<sup>^{67}</sup>$  See G. Ghidini (2006) Intellectual Property and Competition Law: The Innovation Nexus, Cheltenham/Northampton, MA: Edward Elgar, p. 14.

focus on one aspect of that tension. The promotion of subsequent innovation that builds on what has already been achieved would be harmed—and this would be all the more serious, because the tension is not restricted to the relationship between the patentee and its competitors. It does, indeed, influence the overall market's actual and potential competitive dynamics. What is needed, therefore, is a set of rules for a patent system that respects and enhances a rich dialectic interrelationship between the need to guarantee a differential return on activities and investments in research and development, on the one hand, and the need to safeguard the actual chance of third parties' subsequent innovation and the competitive fabric of the market as a whole, on the other. This balance will be struck in the rules on patentability—that is, that certain thresholds need to be passed before a patent is warranted—and in the scope of the patent and the limitations to the exclusive right, among others.<sup>68</sup>

An ideal patent system that can be fully justified will, therefore, not simply involve rewarding inventors in order to stimulate them to invent more, or stimulating them to achieve, in turn, inventive steps. The finer points of the system set out here require that such a patent system will more specifically reward:

the innovation already developed in such a way that the reward granted to the current inventor stimulates both the inventor to continue and third parties to develop a subsequent innovation which might compete with the preceding one, thus also spurring on the first innovator, in a virtuous pro-innovation and pro-competition dynamic process.<sup>6)</sup>

Goods perish through use, while intangible property is—at least in theory—perpetual.<sup>70</sup> But the socio-economic value of these rights is not so important that a perpetual restriction on competition is necessary and justifiable to enhance competition on other levels. Innovative activity will be sufficiently enhanced, without restrictions of competition on the production level that are too far-reaching, when the intellectual property right is restricted in time. For patents, which grant the parentee extensive restrictive powers and whose protection is wide in scope, the term of protection is relatively short (20 years). From now on, literary works are to be protected inder copyright for a period of the life of the author plus 70 years, but the protection granted is weaker than that offered under patents: only the particular expression of an idea is protected; the idea as such is left unprotected. This attempt to get the balance between restriction on, and freedom of, competition right through the use of a fixed term can be seen as lacking precision and potentially unjust, but introducing a sliding scale would require the determination of the term of protection on the basis of the merits of each individual invention or creation. This would create massive administrative costs that outweigh the benefits derived from the system and, on top of this, it would create an undesirable climate of legal uncertainty.<sup>71</sup>

<sup>&</sup>lt;sup>68</sup> Ghidini (2006) Intellectual Property and Competition Law (n. 67 above), p. 14.

<sup>&</sup>lt;sup>69</sup> Ghidini (2006) Intellectual Property and Competition Law (n. 67 above), p. 24.

The may, however, lose its economic value after a number of years: e.g. an inventive production process protected by a patent can be applied indefinitely, but will, after a number of years, be overtaken by new technological developments and so lose its economic value.

 $<sup>^{71}\,</sup>$  For more details, see M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 535–6.

#### A duty to exercise

Another way of getting the balance right is the duty to exercise and use, which is linked to patent and trade mark rights. Compulsory use and compulsory licences are an integral component of most intellectual property legislations. The idea behind this is, first of all, that use of the intellectual property right will provide an income to its owner and that this profit will encourage him to continue his innovative work. The only reason why a restriction of competition at the level of production is acceptable is the enhancement of competition on the innovative level, through the possibility for the owner of the right to realize a profit. This justification collapses if this right is not used, a defect that is remedied by the introduction of the duty to exercise and use. The weaker protection accorded under copyright law renders this restriction superfluous in that area; neither does such a duty exist for real and personal property. This can be seen as an important difference between intangible industrial property, and real and personal property.

A second reason for the obligation to use is the feeling that the grant of an exclusive right should be counterbalanced by the fact that the previously unavailable subject matter of the right is made available to society. The obligation to use is necessary because, due to the exclusive right, the owner of the intellectual property right is the only one who makes it available. More specifically, for patents, there is the additional requirement to reveal the technical details and specifications of the invention, in order to bring them into the public domain. In exchange for the exclusive right, society has the right to share the development of technical knowledge, and, eventually, to use it for further research and further developments.

This represents an additional advantage of the patent system, because the alternative is to be found in the use of the secrecy system. Technological developments are, in the absence of a patent system, <sup>73</sup> kept secret. Society is unable to share this new knowledge and the inventor can only use the invention in a way that does not reveal the technical functioning of it, because, once in the public domain, it can be used freely by all of the competitors. In that instance, the inventor is put in a very weak position. It has been demonstrated that a patent system that grants the inventor adequate property rights fulfils the task reserved for such a system in a market economy in a better way. The law of secrecy cannot replace the patent system fully; it can only be a useful addition to it.<sup>74</sup>

### Copyright involves other factors too

To this point, we have mainly been concerned with patents and trade marks. Historically, copyright developed on a very different basis, with a lot of emphasis on the link between the author and his or her work. An attempt was made to make sure that it was the author, rather than someone else, who would secure the benefits resulting from the work and its exploitation.

<sup>&</sup>lt;sup>72</sup> Lehmann, 'The Theory of Property Rights' (n. 71 above), at 532–3.

<sup>&</sup>lt;sup>73</sup> This technique can also be used as an alternative in a particular case for a patent application if the costs of revealing the technical detail of the invention and the other costs linked to such an application are perceived to be higher than the benefits of the stronger protection offered by the patent system. Potentially, the duration of the secrecy is endless, which is also an advantage over the patent system.

<sup>&</sup>lt;sup>74</sup> See P. Lunn, 'The Roles of Property Rights and Market Power in Appropriating Innovative Output' [1985] J Legal Stud 423, 423.

Over the years, however, copyright has increasingly been used to protect the commercial exploitation of the work and new, more technologically orientated, types of work have been protected by copyright.<sup>75</sup> It is therefore submitted that the same economic justification theory can now be applied to copyright.<sup>76</sup> Protection against the copying of the work, for example, will restrict competition between the right holder and his or her exploitation of the work, on the one hand, and copyists, on the other. Such a restriction will encourage the right holder to create more works, thus enhancing competition at the higher, creative level, because there is now more of a prospect of securing a return. This is no doubt not the only motivation for authors, but it is clearly an important factor.

But one additional problem arises in relation to the economic analysis of copyright. Copyright has to strike a balance between providing the incentives for authors, on the one hand, and the right of access to information of the public, on the other. In the words of the famous study by Landes and Posner:

Copyright protection—the right of the copyright's owner to prevent others from making copies—trades off the costs of limiting access to a work against the benefits of providing incentives to create the work in the first place. Striking the correct balance between access and incentives is the central problem in copyright law.<sup>77</sup>

Cooter and Ulen focus on the same issue when they argue that 'Put succinctly, the dilemma is that without a legal monopoly too little of the information will be produced but with the legal monopoly too little of the information will be used.'

Let us analyse the implications of these specificities of copyright in a little more detail. The innovation and creation level interacts with the production level; this is a given. In the copyright sphere, we are dealing with works that are the expression of ideas. Starting from these ideas, one has to recognize that they are by their nature, public goods, and can therefore freely be accessed and used by anyone. The way in which these ideas enter the public domain is through their expression by an individual author, because such expression is required for the transmission of the idea. From an economic point of view, it is also important to keep in mind that such access is non-exhaustive in nature: the consumption of the expression does not necessarily make the expression and its material support unsuitable or unavailable for further consumption. It is also the case that, in the light of modern (digital) technological advances, the costs of reproduction and distribution of the expression of the idea have become marginal, and that such reproduction and distribution is easily achievable and can be done in a minimum amount of time. There is therefore plenty of room for free-riders. The situation is therefore entirely in favour of competition at the production level; at the innovation and creation level, there is very little in terms of incentive to create. The creator may not be able to recoup the cost of production, because the cost of copying is lower and there is no tool to reap any substantial benefit from such creative activity. In economic terms, then, there is no efficient market of the authors' expression of ideas.<sup>79</sup>

<sup>&</sup>lt;sup>75</sup> J. Reichman, 'Charting the Collapse of the Patent–Copyright Dichotomy: Premises for a Restructured International Intellectual Property System' (1995) 13 Cardozo Arts and Ent LJ 475.

 $<sup>^{76}</sup>$  See R. Watt (2000) Copyright and Economic Theory: Friends or Foes?, Cheltenham/Northampton, MA: Edward Elgar.

<sup>&</sup>lt;sup>77</sup> W. Landes and R. Posner, 'An Economic Analysis of Copyright Law' (1989) 18 J Legal Stud 325, 326.

<sup>&</sup>lt;sup>78</sup> R. Cooter and T. Ulen (1988) Law and Economics, New York: HarperCollins, p. 145.

<sup>&</sup>lt;sup>79</sup> G. Ramello (2002) 'Copyright and Antitrust Issues', www.serci.org/2002/ramello.pdf, p. 8.

Copyright, therefore, is the tool that is created to give authors a right in their expression of ideas, hence securing for them appropriate profits derived from their act of creation. Copyright will lead to the creation of an immaterial property right in the expression of an idea by the author, a right that the author can use to secure appropriate profit from that act of creation on the market.<sup>80</sup> This will enhance creation by providing an incentive, and therefore competition on the innovation and creation level will be stimulated, while any such right will inevitably limit competition at the production level, because competitors are no longer free to copy the copyright work. A restriction on competition is put in place in furtherance of competition.<sup>81</sup>

Copyright fulfils here the 'pro-competitive' regulating role filled by the property right when it comes to the consumption and the production level—but an important distinction must be drawn. Property rights are a legal recognition of a situation—that is, of the physical possession of and control over the goods—whereas copyright is not based on a de facto situation at all: it is rather an artificially created right, put in place by the legislator to regulate competition at the innovation and creation level, and to provide the much-needed incentive to create. This difference gives copyright a different standing. The legislator created it specifically as a tool through which to enhance competition.

Copyright plays therefore, *mutatis mutandis*, the same pro competitive role in relation to literary and artistic works that patents play in relation to inventions. An important additional factor in the context of copyright, however, is the need to safeguard access to information and freedom of expression. This reflects itself in the basic rule that copyright will not protect ideas, but only their expression. The threshold for that expression to be protected will be the fact that it satisfies the originality expression that allows one to distinguish it from the mere idea. It has been said that copyright therefore protects '*independently achieved expressive results*',82 which applies both in a *droit d'auteur* tradition, with its 'subjective' notion of originality, and in an Anglo-Saxon copyright environment. In the *droit d'auteur* tradition, the author's personal expression is therefore protected as a creative work, irrespective of the mediocrity or otherwise, of the expressive results; copyright systems focus instead on the concept of independent creation. Protection by means of copyright, therefore, depends on the objective attainment of a result—again, irrespective of its mediocrity or otherwise in terms of creative effort—that arises from a contribution that is neither copied from anyone else, nor reproduced using known standard models.<sup>83</sup>

Up until now, we have looked at 'traditional' copyright in literary and artistic works, such as books and sculptures. It is however necessary to add that copyright has developed in two ways in recent years that may have influenced the position: on the one hand, copyright has been expanded to protect the results of technological evolutions; on the other, we have seen an increasing emphasis on the economic interests of those who exploit copyright works, such as producers and publishers. It is important to note that, as a result, copyright is increasingly used to protect information goods and the investment needed for the creation

<sup>&</sup>lt;sup>80</sup> K. Maskus (2000) *Intellectual Property Rights in the Global Economy*, Washington DC: Institute for International Economics, pp. 28–32.

 $<sup>^{\</sup>rm 8l}\,$  See M. Lehmann, 'Property and Intellectual Property: Property Rights as Restrictions on Competition in Furtherance of Competition' [1989] IIC 1, 1–15.

<sup>82</sup> G. Ghidini (2006) Intellectual Property and Competition Law: The Innovation Nexus, Cheltenham/ Northampton, MA: Edward Elgar, p. 54.

<sup>83</sup> Ghidini (2006) Intellectual Property and Competition Law (n. 82 above).

of these goods. It is clear that, in these circumstances, the level of originality involved in the creation of such information goods is lower, and that the link with the author and his or her creativity, which makes the work his or her own individual creation, is weaker. This must also weaken the justification for strong copyright protection for these information works, because these elements were described as the basis for the economic justification of copyright. Another important element is the fact that, by their nature, information goods have a poor substitutability. In this applies, to some extent, to all copyright works: for example we are interested in a novel because of the way in which the author has expressed the idea and therefore the novel cannot be easily substituted by another novel in which another author expresses the same idea in his or her different own way. This factor is, however, more strongly present in relation to information goods.

### A special type of monopoly

It may well be that some additional remarks on the type of monopoly that is granted by intellectual property rights are appropriate. That monopoly is, in no way, absolute and it is limited in time; it is also subject to competition with similar products, similar trade marks, etc. Inventions compete with substitute technologies, so that the profus based on the exclusive use of the invention are rarely monopolistic rents. <sup>86</sup> The latter situation only arises in those rare situations in which an invention is such a radical step forward that there is a (temporary) absolute lack of substitutability. <sup>87</sup> In copyrigh, incanwhile, only one particular expression of an otherwise unprotected idea is granted copyright protection.

Intellectual property rights do not give their owners an automatic profit: they are directly oriented towards demand. The reward that they provide for innovative activity depends upon the competitive structure of the market concerned. Only when the market appreciates the innovation on its merits will the owner be rewarded and make a profit:<sup>88</sup> 'The ownership of intangibles in the sense of abstract property rights . . . is therefore limited to a temporary, ephemeral competitive restriction.'<sup>89</sup> Intellectual property rights confer exclusive rights, but they hardly ever confer a real monopoly, in the sense that the monopolist can act in an arbitrary way without being influenced by his or her competitors.

# Those in favour and those against

It has to be added that a number of economists have argued against the existence of intellectual property rights and especially against the existence of patents. In their view, patents do not promote technological innovation—or there are more effective ways in which to do so. These critics are, however, unable to provide clear evidence that intellectual property

- <sup>84</sup> S. Lemarchand, O. Fréget, and F. Sardain, 'Biens informationnels: entre droits intellectuels et droit de la concurrence' [2003] 6 Propriétés Intellectuelles 11, 18.
  - 85 G. Ramello (2002) 'Copyright and Antitrust Issues', www.serci.org/2002/ramello.pdf, p. 8.
- <sup>86</sup> H. Ullrich, 'The Importance of Industrial Property Law and other Legal Measures in the Promotion of Technological Innovation' [1989] Industrial Property 102, 105.
- $^{87}$  M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 537.
- $^{88}\,$  See H. Ullrich, 'The Importance of Industrial Property Law and other Legal Measures in the Promotion of Technological Innovation' [1989] Industrial Property 102, 112.
- 89 M. Lehmann, 'The Theory of Property Rights and the Protection of Intellectual and Industrial Property' [1985] IIC 525, 537.
- <sup>90</sup> See e.g. F. Machlup (1957) *An Economic Review of the Patent System*, Study No. 15 of the Senate Judiciary Subcommittee on Patents, Trademarks and Copyrights, Washington DC: US Congress; E. Penrose (1951)

rights do not fulfil a useful economical function and none of their alternatives has ever been tested successfully in practice. <sup>91</sup> All they can demonstrate is that some features of the existing patent system cannot be justified economically and that the existing system does not always achieve a perfect balance between the various levels of competition. This is undoubtedly true, but the solution is not the abolition of the whole system. What is required might rather be described as 'fine-tuning' of the system. <sup>92</sup>

There is also a substantial amount of empirical economic evidence that supports the economic justification for the existence of intellectual property rights. Most of these studies deal with patents, and the causal relationship between the availability of patent protection and investment in research and development and in innovation.<sup>93</sup>

### Who gets the right?

Thus economic theory provides a justification for the existence of intellectual property rights. A related point is the issue of who gets these intellectual property rights. It has been suggested that the economic theory proves that it is valuable to have intellectual property rights, but is unable to guarantee that the enforcement of these rights will have valuable results in each individual case. The author and the inventor must obtain these rights to secure the best possible system—and this can only be accepted if one uses labour theory to justify the allocation of the property rights whose existence the economic theory justifies.<sup>94</sup>

Labour theory was formulated by John Locke<sup>95</sup> and is the combination of two concepts: the first is that everyone has a property right in the labour of his own body and brain; the second adds that the application of human labour to an unowned object gives you a property right in it. When applied to intellectual property rights,<sup>96</sup> this might explain why it is the author who gets the copyright in the book and why it is the inventor who gets the patent in the invention.

The Economics of the International Patent System, Baltimore, MD: Johns Hopkins University Press; see also F. Machlup and E. Penrose The Patent Controversy in the Nineteenth Century' (1950) 10 J Econ Hist 1.

- <sup>91</sup> This is admitted by § Machlup (1957) An Economic Review of the Patent System, Study No. 15 of the Senate Judiciary Subcommittee on Patents, Trademarks and Copyrights, Washington DC: US Congress, at the end of his study.
- $^{92}\,$  See F. K. Beier, 'The Significance of the Patent System for Technical, Economic and Social Progress' [1980] IIC 563, 572.
- <sup>93</sup> E.g. C. T. Taylor and A. Silberston (1973) *The Economic Impact of the Patent System*, Cambridge: Cambridge University Press; the 1973–4 study of the Ifo-Institut für Wirtschaftsforschung in Munich concerning the relationship between the Patent System and Technical Progress, which is discussed in K. H. Oppenlander, 'Patent Policies and Technical Progress in the Federal Republic of Germany' [1977] IIC 97; A. Silberston (1987) *The Economic Importance of Patents*, Cambridge: Cambridge University Press. An overview of older studies can be found in J. Schmookler (1966) *Invention and Economic Growth*, Cambridge, MA: Harvard University Press; see also P. Lunn, 'The Roles of Property Rights and Market Power in Appropriating Innovative Output' [1985] J Legal Stud 423, 423.
- $^{94}\,$  H. Spector, 'An Outline of a Theory Justifying Intellectual and Industrial Property Rights' [1989] 8 EIPR 270, 272–3.
- <sup>95</sup> J. Locke (1690) The Second Treatise of Government, Pt 27, reproduced in P. Laslett (ed.) (1970) *Two Treaties of Government*, Cambridge: Cambridge University Press.
  - <sup>96</sup> See R. Nozick (1974) Anarchy, State and Utopia, Oxford: Blackwell, pp. 181–2.

The combination of the economic theory and the labour theory provides a full justification for the system of intellectual property rights. This reference to the labour theory explicitly justifies the fact that it is the author or the inventor who should own the intellectual property right—but it is submitted here that this is already implicit in the economic theory. An intellectual property right, as a restriction on competition at production level (because not everyone can produce the goods protected by the right), will not stimulate competition on the innovation level if the right is not given to the innovator, whether an author or an inventor. One will only be stimulated to innovate when one gets the intellectual property rights in the innovation. This effect, which is the key element in the economic justification theory for intellectual property, disappears when someone else gets the intellectual property rights in the innovation. The actual exploitation of the right can be undertaken by the right holder or by a licensee—this does not affect the justification at all.

### Other ways of justifying intellectual property

Thus economic analysis justifies the continued existence of intellectual property rights and economic history confirms the correctness of the analysis. <sup>98</sup> One also finds a series of other elements of justification in an historical analysis and in a socio-economic analysis (reward theory). <sup>99</sup>

While these two theses, based on natural rights and rewards, are no longer fashionable as justifications for the existence of intellectual property rights, <sup>100</sup> the possibility to reward the inventor is still rightfully considered to be a positive side-effect of the patent system.

### A historical analysis

There seems to be a need for a system protecting innovation once a country starts to develop its industry. This becomes especially clear when one considers the example of patents. There is a correlation between industrialization and patent protection: patents are introduced when the process of industrialization starts and each increase in the level of patent protection corresponds to progress in the industrialization process. This evolution is visible in most European countries from the fifteenth century onwards, but it becomes very prominent in the nineteenth century, as a result of the Industrial Revolution.

It has to be added that this link between patents and industrialization is based on the idea that a country will not be able to benefit from the industrialization process in Europe if it does not introduce a system of patent protection—a conclusion that was reached as a result of an active debate in which both the advantages and disadvantages of the introduction of a system of patent protection were fully taken into account.<sup>101</sup>

 $<sup>^{97}\,</sup>$  H. Spector, 'An Outline of a Theory Justifying Intellectual and Industrial Property Rights' [1989] 8 EIPR 270, 273.

 $<sup>^{98}\,</sup>$  See M. Lehmann, 'Property and Intellectual Property: Property Rights as Restrictions on Competition in Furtherance of Competition' [1989] IIC 1, 11.

<sup>99</sup> F. K. Beier, 'The Significance of the Patent System for Technical, Economic and Social Progress' [1980] IIC 563, 563.

<sup>&</sup>lt;sup>100</sup> R. Benko (1987) *Protecting Intellectual Property Rights: Issues and Controversies*, Washington DC: American Enterprise Institute, Ch. 4, p. 17.

<sup>&</sup>lt;sup>101</sup> See F. K. Beier, 'The Significance of the Patent System for Technical, Economic and Social Progress' [1980] IIC 563, 571–2.

Apart from this historical correlation, we should turn our attention also to the evolution of economic output. The introduction of a system of patent protection in a country's legal system goes together with a clear increase in the industrial production of that country. We can refer here to the English example in the eighteenth century, but all other industrialized countries might equally serve as examples. Another striking feature is the high level of industrialization in all countries with a high level of patent protection. It might even be demonstrated that their level of industrialization is higher than the level reached by countries that refuse to grant patent protection or which only grant a weak form of patent protection. The successes of the Spanish and Italian pharmaceutical industries, and the Swiss chemical industry, at times when patent protection was not available do not prove the contrary: no new product emerged and success was based purely on imitation. This situation only improved with the introduction of a system of patent protection. <sup>102</sup> It is not, however, possible to establish a causal link between these two facts in a conclusive manner. Factors other than the patent system may be responsible for the higher level of industrialization. <sup>103</sup>

These historical elements provide additional arguments in favour of the patent system and a system of intellectual property rights in general, but, taken in isolation, they do not provide a complete and convincing justification for the existence of intellectual property rights. Other theses that have been suggested as justification for the existence of patents rely on natural rights, rewards for the inventor, and disclosure. A Immediately after the French Revolution, a tendency to explain and justify individual property rights as natural rights, on the basis of a series of moral and philosophical arguments, became fashionable and was extended to intangible property, such as patents and other intellectual property rights but this theory never found much support outside France.

### The reward theory

Similar arguments are found in the reward theory, which sees patents as a reward owed by society to inventors in return for their creativity and their services to society<sup>106</sup>—that is, that society has a moral obligation to compensate and to reward the inventors.<sup>107</sup> But this argument cannot justify the existence of the patent system, even if one agrees that the inventor should be rewarded.

We demonstrated that a patent offers only a potential monopoly—that is, a potential reward to the inventor. Only those patents that are commercially attractive and the

 $<sup>^{102}</sup>$  Beier (1980) 'The Significance of the Patent System for Technical, Economic and Social Progress' (n. 101 above), pp. 573–4.

<sup>&</sup>lt;sup>103</sup> Beier (1980) 'The Significance of the Patent System for Technical, Economic and Social Progress' (n. 101 above), pp. 573–4.

<sup>&</sup>lt;sup>104</sup> Beier (1980) 'The Significance of the Patent System for Technical, Economic and Social Progress' (n. 101 above), p. 16.

 $<sup>^{105}</sup>$  This theory was endorsed by the French National Assembly and became part of the Preamble to the patent law of that period: see the quotation in F. Machlup and E. Penrose, "The Patent Controversy in the Nineteenth Century" (1950) 10 J Econ Hist 1, 11.

<sup>&</sup>lt;sup>106</sup> This theory applies also to the other intellectual property rights.

<sup>&</sup>lt;sup>107</sup> F. Machlup and E. Penrose, 'The Patent Controversy in the Nineteenth Century' (1950) 10 J Econ Hist 1, 17, quoted, in this respect, J. S. Mill's statement: 'That he, the inventor, ought to be compensated and rewarded... will not be denied... it would be a gross immorality of the law to set everybody free to use a person's work without his consent, and without giving him an equivalent'.

commercial exploitation of which is successful offer a reward to the inventor. Furthermore, this is an indirect reward. A direct reward—such as a lump sum, a decoration, or a title—would be a better idea if the aim of the measure is to reward the inventor. The inventor would be assured of a reward and would be able to assess the nature or amount of the reward in advance.

#### **Encouraging disclosure**

A further thesis that is worth mentioning emphasizes the role that the patent system plays in encouraging inventors to disclose their secrets to society. Diffusion of technology, which is considered to be desirable for society, will only take place when inventors make the technical details of their inventions public. If, as already explained, there is no protection for the invention and everyone can use the technology freely, the inventor will rely on secrecy for protection, because imitation of the invention entails only minimal costs when compared to those of the inventor. The technical details of new inventions will not be disclosed in such a system and society will not benefit to the same extent.<sup>109</sup>

Although this theory is helpful and the disclosure of technical knowledge is a very positive aspect of the patent system, it has to be said that its value is, in part, undermined by two important details. The inventor without patent protection would have some lead time during which he or she would enjoy a kind of market monopoly and during which he or she could collect a reward for the work, because it would take the imitator some time before being ready to produce and to enter the market. This is reinforced by the fact that the exploitation of a patent quite often requires a substantial amount of secret know-how, which the imitator will have to acquire if it is to exploit the invention successfully. In many cases, however, that lead time may not be long enough for the inventor to recover all costs and to make a profit. 112

# The special position of copyright

The last paragraphs have focused extensively on patents. Many of the arguments can also be used for trade marks, but are there perhaps other additional elements that can justify the existence of copyright? Originally, copyright dealt with literary and artistic works. It could be argued that the author was given certain property rights in these works to reward his or her artistic

<sup>&</sup>lt;sup>108</sup> See M. Blakeney (1989) Legal Aspects of the Transfer of Technology to Developing Countries, Oxford: ESC, pp. 51–3.

<sup>&</sup>lt;sup>109</sup> See M. Blakeney (1989) *Legal Aspects of the Transfer of Technology to Developing Countries*, Oxford: ESC, p. 53; R. Benko (1987) *Protecting Intellectual Property Rights: Issues and Controversies*, Washington DC: American Enterprise Institute, Ch. 4, pp. 16–17.

<sup>&</sup>lt;sup>110</sup> See M. Braunstein, W. J. Baumol, and J. W. Mansfield (1980) 'The Economics of R&D', in B. V. Dean and J. C. Goldhar (eds.), *Management of Research and Innovation*, New York: John Wiley and Sons, pp. 19–32.

<sup>&</sup>lt;sup>111</sup> See F. M. Scherer (1980) *Industrial Market Structure and Economic Performance*, Chicago, IL: University of Chicago Press, p. 447.

In Patent-Copyright Dichotomy: Premises for a Restructured International Intellectual Property System' (1995) 13 Cardozo Arts and Ent LJ 475, argues, in this respect, that patents and copyright should be restricted to the really desirable highly creative or innovative cases; anything else in between should be protected only by lead time. When necessary—because of the speed at which copying or reverse engineering takes place in the new digital environment—that lead time can be created artificially.

performance, or that the author's claims were based on a natural or moral right. Specifically, in the *droit d'auteur* system, a lot of emphasis is placed on the fact that the work involves an expression of the personality of the author. Copyright is then also given certain aspects of a personality right (cf. moral rights) and does not remain a pure property right. In general one could summarize matters by saying that there are four principles that justify the copyright system: just reward for labour, stimulus to creativity, natural law, and social requirements.

The strong emphasis on natural or moral right was perfectly acceptable for works, such as novels, songs, and poems, but it becomes increasingly difficult to justify copyright exclusively on this basis. Clearly, this theory does not suit computer programs and other highly technological works, which are now equally protected by copyright. As copyright has entered the technological field, it has becomes clear that its real justification is equally to be found in the economic justification theory. Works protected by copyright are knowledge goods; they are concerned with creativity and innovation, and present, in this respect, the same characteristics as inventions. They too need to be protected as economic rights, if artistic, creative, and innovative activity in this area is to be promoted.

There is, however, one essential difference when it comes to inventions and trade marks. The right involved here is a copyright, the subject matter of which is the particular expression in a literary work, in a piece of music, in a sculpture, etc., by the author of an idea. There is no direct link between the copyright and the idea embodied in the work. One can distinguish between a book and the ideas expressed in it, whereas an invention and the novel idea involved are one and the same inseparable concept. The ideas contained in a work protected under copyright are, on top of that, not necessarily novel. It would not be possible to justify the protection of these ideas under the economic justification theory. Fortunately, this is not necessary, because copyright only protects the expression by the author of a certain set of ideas. These ideas themselves are not protected by copyright.

But let us come back briefly to the link between the author and the work. This special aspect of copyright does not only refer to a personality right as we have seen, but also incorporates an important link with human rights. René Cassin, one of the architects of the current human rights framework, has emphasized the importance of the act of creation and the link with the creator in relation to rights that may flow from it. In his view, the ability and the desire to develop intellectual and creative activities from which copyright works may result is potentially found in all human beings. As such, it deserves respect and protection in the same way as do all other basic faculties that are common to all human beings. This would mean that creators can claim rights by the very fact of their creation.

This is a broad statement and it is by no means clear that such rights are, by definition, human rights, or that they must cover all creations and necessarily take the format of an exclusive right in such creations. <sup>115</sup> Further analysis is therefore warranted.

<sup>&</sup>lt;sup>113</sup> See, in M. Van Hoecke (ed.) (1991) *The Socio-Economic Role of Intellectual Property Rights*, Brussels: Story-Scientia; W. Grosheide, 'Economic Aspects of Intellectual Property Rights, Especially of Copyright,' pp. 65–72; and A. Strowel, 'An Appraisal of the Economic Analysis of Copyright Law', pp. 103–35; R. Watt (2000) *Copyright and Economic Theory: Friends or Foes?*, Cheltenham/Northampton, MA: Edward Elgar.

<sup>&</sup>lt;sup>114</sup> See R. Benko (1987) Protecting Intellectual Property Rights: Issues and Controversies, Washington DC: American Enterprise Institute, Ch. 4, pp. 21 and 23.

<sup>&</sup>lt;sup>115</sup> R. Cassin (1959) 'L'Intégration, parmi les droits fondamentaux de l'homme, des droits des créateurs des oeuvres de l'esprit', in M. Mélanges Plaisant, *Etudes sur la propriété industrielle, littéraire et artistique*, Paris: Sirey, p. 229; M. Vivant, 'Le Droit d'auteur: un droit de l'homme?' (1997) 174 RIDA 60, 87.

The first key provision in an international instrument that identifies copyright as a human right is found in Art. 27 of the Universal Declaration of Human Rights. 116 According to that Article, everyone has first of all 'the right to the protection of the moral and material interests resulting from scientific, literary or artistic production of which he is the author'. But it is equally important to note another element stated in Art. 27(1): that 'everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits'. Copyright will therefore have to strike a balance somewhere in the middle.

The second key provision in an international instrument that identifies copyright as a human right is found in the International Covenant on Economic, Social, and Cultural Rights. <sup>117</sup> This Covenant can be seen as a follow-up action on the Universal Declaration of Human Rights—but it is important to note that this follow-up action took the form of a treaty and that, as such, it can impose legally binding obligations to implement its provisions on states that became contracting parties to it. Article 15 of the Covenant is very clear in this respect, and imposes a number of responsibilities and steps to be taken on contracting states in the following way:

- (2) The steps to be taken by the States Parties to the present Covenant to a hieve the full realization of this right shall include those necessary for the conservation, development and the diffusion of science and culture.
- (3) The States Parties to the present Covenant undertake to respect the freedom indispensable for scientific research and creative activity.
- (4) The States Parties to the Present Covenant recognize the benefits to be derived from the encouragement and development of international contacts and cooperation in the scientific and cultural fields.

These obligations apply to the substantive rights granted in Art. 15(1) of the Covenant, which is very much based on Art. 27 of the Universal Declaration of Human Rights, comprising the rights of everyone:

- (a) to take part in cultural life:
- (b) to enjoy the benefits of scientific progress and its applications;
- (c) to benefit from the protection of the moral and the material interests resulting from any scientific, literary, or artistic production of which he is the author.

Once more, the need for copyright to strike a balance emerges, but the identification of copyright—or at least certain aspects of it—as a human right is an additional justification for the existence of copyright. But it is not a complete justification, because it does not

<sup>&</sup>lt;sup>116</sup> Adopted and proclaimed by the United Nations in 1948 as General Assembly Resolution 217A(III) of 10 December 1948, specifically in relation to copyright: see J. A. L. Sterling (2008) *World Copyright Law*, 3rd edn, London: Sweet and Maxwell, pp. 47–50.

 $<sup>^{117}\,</sup>$  The International Covenant on Economic, Social, and Cultural Rights, 993 UNTS 3, GA Res 2200(XXI) 21 UN GAOR Supp (No. 16), 49, UN Doc A/6316 (1966), adopted on 16 December 1966.

<sup>&</sup>lt;sup>118</sup> For a complete analysis on this point, see P. Torremans (2004) 'Copyright as a Human Right', in P. Torremans (ed.) *Copyright and Human Rights*, The Hague: Kluwer Law International, pp. 1–20 and P. Torremans (2008) 'Copyright (and Other Intellectual Property Rights) as a Human Right', in P. Torremans (ed.) *Intellectual Property and Human Rights*, *Enhanced Edition of Copyright and Human Rights*, Alphen aan den Rijn: Kluwer Law International, pp. 195–215.

28 INTRODUCTION

indicate where the balance lies, and, as such, it is not able to justify each and every aspect of the current shape of copyright law.

# The current economic importance of intellectual property

Our historical overview demonstrated that intellectual property rights were introduced because they were thought to be essential for further industrial and economic development. We will now try to analyse the current economic importance of intellectual property rights. It is submitted, on the basis of indirect evidence, that this importance is huge.

The GATT–World Trade Organization (WTO) agreement contained the TRIPS initiative on intellectual property. This initiative was a reaction by the governments that were concerned by the complaints of industry. Figures pointing to multimillion-dollar losses in royalties due to the counterfeiting of famous trade marks in countries that offered a low level of protection for intellectual property rights were published by industrial sources. One can understand and accept these figures on the basis that almost every product, and almost every service, now bears a trade mark. In 1974, the World Intellectual Property Organization (WIPO) estimated that 4 million trade marks were in use in the world and there is every reason to believe that there are more trade marks in use now than there were in 1974. The GATT–WTO agreement attaches great importance to the strengthening of the protection for trade marks and the other intellectual property rights, which clearly emphasizes their tremendous economic value.

The evolution to an economic system based on high technological developments has resulted in the proliferation of patents. Many of these patents have an enormous commercial value. 120 Just think about the whole evolution in the field of genetic engineering: these disease-resistant plants, purified seeds, and drugs produced by genetically engineered bacteria—all protected by patents—are the products of the future and the patent holders are cashing in. It is clear that, if patent protection were not available, there would be no incentive to invest huge resources in high technology research and developments, because there would be no prospect of recuperating, and obtaining a fair return on, the investment—especially when one talles into account that not every research programme will lead to success. 121 One should also not forget the vast number of patents granted for relatively slight improvements upon the existing technology. They may not grab the headlines, but they have a tremendous importance in industry, because they allow the improver to appropriate the results of his or her work and gain a competitive edge over his or her competitors, who would otherwise, in a majority of cases, be able to reverse engineer the improvement at a fraction of the original cost.

<sup>&</sup>lt;sup>119</sup> This figure is quoted by Blakeney (1989) p. 113, with a reference to the United Nations Conference on Trade and Development (UNCTAD) 1981 report *The Role of Trade Marks in the Promotion of Exports from Developing Countries* (n. 108 above).

<sup>&</sup>lt;sup>120</sup> See also G. Parchomovsky and S. Wagner (2004) 'Patent Portfolios', Scholarship Paper 51, University of Pennsylvania Law School, <a href="https://www.ftc.gov/bc/workshops/ipmarketplace/apr17/docs/rwagnerwv.pdf">https://www.ftc.gov/bc/workshops/ipmarketplace/apr17/docs/rwagnerwv.pdf</a>>.

<sup>&</sup>lt;sup>121</sup> See B. Pretnar, 'The Economic Impact of Patents in a Knowledge-Based Market Economy' [2003] IIC 887.

What about the economic importance of copyright? Just imagine the range of products covered: books; CDs, movies, television broadcasts, computer programs, multimedia products, etc. Copyright has become very wide in scope and a number of the new technological developments protected under copyright are of enormous commercial importance. Add to that the business generated by the phenomenon of character merchandising, which allows goods featuring real and fictitious characters—such as pop stars, Popeye, or Mickey Mouse—to be marketed more easily by those who will earn more through this link than they do through their normal activities, and you will begin to perceive that the current economic importance of intellectual property is, indeed, huge.

Intellectual property is now involved in almost every aspect of our highly developed economic life, with its strong emphasis on technological progress and brand names. Intellectual property is pushed by market forces. The Marrakesh Agreement of the GATT, taken over by the WTO, led to many developing countries adopting stricter intellectual property protection regimes and saw an important expansion of the international intellectual property regime. Now, attention at WTO level is turning to a next step, in the direction of even stronger intellectual property protection, even if the economic impact of these current reforms is still the subject of a lively discussion. 122

One might even argue that the original presumption in favour of free competition and the perception of intellectual property rights as exceptional rights, the grant of which was only appropriate in cases of exceptional, innovative, and creative activity, no longer exists. This point of view accepts that industry now presumes that intellectual property protection will be available for every new product and every new development, and sees full-scale free competition as the exception. <sup>123</sup> It is clear that such a reversal of attitude cannot be encouraged unconditionally. Indeed, serious consideration should be given to the questions of overlap between intellectual property rights, in the sense that recent expansion of rights has given rise, on many occasions, to several rights protecting the same thing.

This aspect of convergence of rights aggravates the existing inflation of rights. Innovators and creators are increasingly unable to go about their business without taking out a whole raft of licences in advance. Is this not an aberration? Has the time not come to start thinking about cutting back the, sometimes excessive, scope of intellectual property rights and about reducing the overlap between the various rights? Maybe the Doha Round of WTO negotiations and its domands to reduce, rather than expand on, the impact of TRIPS in certain areas is a sign that this is, indeed, the case, and that continued and almost unlimited expansion of intellectual property rights is not the way forward. 124 It is indeed clear,

<sup>&</sup>lt;sup>122</sup> See, in general, Maskus (2000) (n. 80 above) and, for a practical example in one particular country and industry, I. M. Azmi and R. Alavi, 'TRIPS, Patents, Technology Transfer, Foreign Direct Investment and the Pharmaceutical Industry in Malaysia' [2001] JWIP 947.

<sup>&</sup>lt;sup>123</sup> R. Merges (1994) 'The Economic Impact of Intellectual Property Rights: An Overview and Guide', Paper delivered at the International Center for Art Economics (ICARE) international conference on The Economics of Intellectual Property Rights, 6–8 October, Venice; see also J. Reichman, 'Charting the Collapse of the Patent–Copyright Dichotomy: Premises for a Restructured International Intellectual Property System' (1995) 13 Cardozo Arts and Ent LJ 475.

<sup>&</sup>lt;sup>124</sup> See, already, in Reichman, 'Charting the Collapse of the Patent–Copyright Dichotomy' (n. 123 above). Now, even the judiciary starts to make comments in that sense: see *MGM v. Grokster Ltd*, 380 F3d 1154 (9th Cir. 2004)—relating to copyright infringement in a US context—and *Lambretta Clothing Co. Ltd v. Teddy Smith (UK) Ltd and anor* [2005] RPC 6, per Jacob LJ at [101]—relating to unregistered design right overlap in a UK context.

on the basis of the analysis in this chapter, that intellectual property rights should play a pro-competitive role if their existence is to be justified. Unduly wide and overlapping rights may well fail the test, and therefore endanger the survival of the whole system of intellectual property and the beneficial role it plays in our economy.

#### An overview

Intellectual property rights play an important role in economic life in this age of technological innovation. Their existence can be justified on an economic basis, with other factors offering further support. Intellectual property rights are also international in character and, in that respect, they fit in rather well with the economic reality of the global economy.

# **Further reading**

Bently, L., Suthersanen, U. and Torremans, P. (eds.) (2010) Global Copyright: Three Hundred Years since the Statute of Anne, from 1709 to Cyberspace, Proceedings of the ALAI Congress London 2009, Cheltenham/Northampton MA: Edward Flyar

DEAZLEY, R. (2004) On the Origin of the Right to Copy: Charting the Movement of Copyright Law in Eighteenth-Century Britain (1695–1775), Oxford: Hart.

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LANDES, W. M. and POSNER, R. A. (2003) *The Economic Structure of Intellectual Property Law*, Harvard: Harvard University Press.

RICKETSON, S. and GINSBURG, J. C. (2006) *International Copyright and Neighbouring Rights: The Berne Convention and Beyond*, Oxford: Oxford University Press.