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Intellectual Property Rights on Information and Market Power: Comparing European and American Protections of Databases

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Introduction

When the database *sui generis* right ("database right") was enacted in 1996,¹ many voices rose to criticise it vehemently. According to some, it would create an unprecedented intellectual property right on information, the latter being traditionally otherwise free, that would lead to monopolies on raw information and give considerable market power to database producers.² The recent report issued by the European Commission 10 years later on the status of the database industry in Europe and the United States³ apparently confirms this thesis as the American database sector is thriving without a similar intellectual property right whilst the European database sector is receding. This would suggest that the situation in the U.S. is ideal, that is, it adequately protects database producers whilst safeguarding consumers' interests. This paper seeks to discover whether these assertions and the Commission report's conclusions actually reflect the reality. If they do, the database right should be abolished and neither the U.S. nor any country should adopt a similar right.

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¹ Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases, OJ L77/20, 27.03.1996 ("the Directive"). Member States had to implement the Directive for 1 January 1998. The origins of the database right are assumed. For a history, see e.g. J. Gaster, "Der Rechtschutz von Databanken", (Carl Heymanns, Cologne 1999).

² See e.g. N. MALLET-POUJOL, "La directive concernant la protection juridique des bases de données: la gageure de la protection privative", 1 Droit de l'informatique et des telecoms 6, at 10 (1996); J. REICHMAN & P. SAMUELSON, "Intellectual Property Rights in Data?", 50 Vanderbilt Law Review 51, at 94 (1997); C. GEIGER, "Droit d'auteur et droit du public à l'information, Approche de droit comparé" 268–273 (Litec, Paris 2004)

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3 On 12 December 2005, the Commission handed down a report recommending certain options (e.g. revising or abolishing the sui generis right) and requesting comments before taking action. See http://europa.eu.int/comm/internal_market/copyright/docs/databases/evaluation_report_en.pdf. For a comment on this report, see A. Kur, R. Hilty, C. Geiger & M. Leistner, "First Evaluation of Directive 96/9/EC on the Legal Protection of Databases – Comment by the Max Planck institute for Intellectual Property, Competition and Tax Law, Munich", 37 IIC 551–558 (2006).

To determine whether the database right and alternative American protections actually grant market power to database producers, market power must first be defined (Section 1). Then the situation in Europe can be examined. The database right is scrutinised first (Section 2.1). Thereafter, additional protections that can be used to reinforce the protection of the database right are examined (Section 2.2). A conclusion as to the strength of the right, alone and in combination with other protections, can then be drawn. The situation in the U.S. is then contrasted. As there is still no database right or equivalent intellectual property right there, the main other types of protection which can be used to protect databases are reviewed. This includes misappropriation, contracts and technological measures (Section 3.1). Additional protections are then reviewed (Section 3.2.). The section concludes with whether or not the protections, alone and in combination, grant market power to database producers. The paper's conclusion draws lessons from this analysis as to what should be the adequate legal protection of databases and suggests remedies to the current over- and underprotection of databases in Europe and the U.S.

1. Market Power Defined

1.1. The European Union

"Market power" is a term used in competition law to determine, among others, whether an undertaking breaches Arts. 81 or 82 of the EC Treaty (agreements in restraint of trade and abuses of dominant position). The European Court of justice (ECJ) held in several cases that

The dominant position referred to in Art. 86 (now 81) of the Treaty relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers; the existence of a dominant position may derive from a combination of several factors which, taken separately, are not necessarily determinative but among which a highly important one is the existence of very large market shares.⁴

Market share is therefore an important factor in determining market power. Obviously, an undertaking has market power when it holds a 100 percent market share on the relevant product market. According to European case law,⁵ a market share of 50 percent can be considered to be large enough that the undertaking will be presumed dominant unless there are exceptional circumstances to the contrary. However, the market share is not wholly determinative and the Commission and the Community courts will look at other factors indicating dominance.⁶ If the market share is 40–45 percent and other factors indicate dominance, the firm will have market power. This is the case, for example, if the market shares of all other competitors are very small. Apart from market shares, barriers to entry also help establishing market power and ownership of an intellectual property right (IPR) may be a barrier to entry. Neither the Commission nor the Community courts have defined "barrier to entry" but their approach is wide so that a lot of firms are found dominant.⁷

In any case, simply possessing market power is not unlawful. Neither U.S. nor

⁷ Ibid.

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⁴ Hilti AG v. Commission (case T-30/89), 1991 ECR II-1439, para. 90 referring to United Brands v. Commission (case 27/76), 1978 ECR 207; Hoffmann-La Roche v. Commission (case 85/76), 1979 ECR 461.

⁵ AKZO v. Commission (case C-62/86), 1991 ECR I-3359.

⁶ R. Whish, "Competition Law" 175–191, (5th ed., Butterworths, London 2005).

EU competition law prohibits the sole acquisition of market power but only its abuse. As judge Learned Hand in US v. Aluminium Co. of America, famously said: "The successful competitor, having been urged to compete, must not be turned upon when he wins."8 Typically, an IPR holder may have market power because its new technology gives it a monopoly or at least an edge over competitors. Therefore, it is likely to abuse this power either by refusing to licence its IPR to competitors or by charging an excessive price. According to the constant European case law applying Art. 82, it is not illegal for an undertaking, even for an IPR holder, to have market power so long as it is not being abused. Thus, a refusal to grant an IPR licence cannot in itself constitute an abuse of a dominant position. However, it can be an abuse in exceptional circumstances. The IMS Health case is so far the ultimate test for the finding of an abuse of dominant position. 10 The cumulative conditions under which there is abuse are that the refusal concerns a product the supply of which is indispensable for carrying out the business in question in that the person wishing to make the product would find it impossible to do so, that the refusal prevents the emergence of a new product for which there is a potential consumer demand, that it is not justified by objective considerations, and that it is likely to exclude all competition in the secondary market. 11

As will be seen throughout the analysis of the database right, it is rare for a database producer to have a 100 percent market share. There might however be more frequent cases of market power below this percentage. If such database producers would abuse their power, competition law would of course apply to correct it. The conditions of the *IMS Health* case are, however, rarely met. But if the competitor wishes to create a new product – just what a new product is remains unclear - and the other conditions are met, a compulsory licence will be immediately imposed on the database producer. However, the question should be asked whether curbing such abuses should be a question for the legislator (ex ante) or for the judge (ex post). In our view, the best solution is that the legislator either crafts balanced intellectual property legislation from the outset, or amends it if it is not, and includes internal mechanisms to avoid such abuses. In other words, the lawmaker should draft such balanced intellectual property legislation rather than rely later on competition law to correct its aim. 12 There are several good reasons for this. If the statutory law integrates mechanisms to curb abuses of market power, the law is more certain, for dominant players and their competitors alike. As everyone knows what the law is ex ante, litigation is less frequent thereby decreasing the costs for all parties involved, as well as the uncertainty attached to the length of the judicial outcome. This in turn increases social welfare.

This notion of market power is sometimes linked to excesses of protection

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^{8 148} F.2d 416 (1945), at 430.

⁹ AB Volvo v. Erik Veng (UK) Ltd (Case C-238/87), 1988 ECR 6211, para. 8; Radio Telefis Eireann (RTE) & Independent Television Publications Ltd (ITP) v. Commission (Magill) (cases C-241/91 P & C-242/91 P), 1995 ECR I-743, para. 49.

¹¹ IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co KG (case C-418/01), 4 c.M.L.R. 28 (2004). A decision of the court of first instance is awaited at the beginning of 2007 in Commission v. Microsoft.

¹¹ Ibid., para. 37.

¹² F. LEVÉQUE & Y. MÉNIÈRE, "The Economics of Patent and Copyright" 87 (Berkeley Electronic Press, 2004), available at: http://ssrn.com/abstract=642622.

deriving directly from the law. But it does not coincide with it. Market power can therefore derive from market conditions favourable to the maker of a product or it can derive from the law, or from both. Market power is evaluated in the portion of the market occupied by the players; it is a horizontal issue, as it concerns relations between competitors, which may in the end affect consumers. Excesses of protection which are granted by the law may sometimes grant market power to an intellectual property holder. But the relationship involved is directly vertical, i.e. between the intellectual property holder and the user/consumer. Intellectual property laws must therefore be wary at the same time to favour the acquisition of market power and of granting too much protection.

1.2. The United States

Market power is also a notion used both for the suppression of concerted conducts (Sec. 1 of the Sherman Act) and monopolisation (id. Sec. 2). Market power has been defined by the Supreme Court as "the power to control prices or exclude competition". 13 This means that market power is "a measure of a firm's ability to raise prices above competitive levels, without incurring a loss in sales that more than outweighs the benefits of the higher price". 14 In other words, "market power is the ability (1) to price substantially above the competitive level and (2) to persist in doing so for a significant period without erosion by new entry or expansion". 15 Like in Europe, market share is not wholly determinative of power. 16 If the demand is elastic, even if the undertaking has e.g. 75 percent market share, consumers will turn to other products if the undertaking is raising its prices. The converse is true with the same facts but with an inelastic demand. This highlights the danger of relying only on market share to determine market power. For many courts, market share is only one factor in assessing market power. ¹⁷ Some categorically state that a market share below 50 or 60 percent is not conclusive of market power while others do not exclude it. Some commentators, like some courts, presume that a market share below 50 or 60 percent does not constitute market power because it would be rare that a firm with half of the market could control price for a significant amount of time. 19 Fewer undertakings will be found to have market power in the U.S. than in the European Union. In addition, as far as intellectual property rights are concerned, it has recently been ruled that a patent (and presumably therefore a copyright as well) does not per se grant market power to its owner. In other words, there is no presumption of market power on the part of a patentee; it must be verified in every case.²⁰

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¹³ U.S. v. E.I. du Pont de Nemours & Co., 351 U.S. 377, 391–392 (1956).

¹⁴ E. SULLIVAN & J. HARRISON, "Understanding Antitrust and Its Economic Implications" 214, (2nd ed., Matthew Bender, New York 1994).

¹⁵ P. AREEDA & H. HOVENKAMP, Fundamentals of Antitrust Law, 5-5–5-7, (3rd ed., Aspen Publishers, New York 2004).

¹⁶ E. SULLIVAN & J. HARRISON, *supra* note 14, at 215; *Broadway Delivery Corp. v. United Parcel Service (UPS)*, 651 F. 2d 122 (2nd Cir.), *cert. denied*, 454 U.S. 968 (1981) (market shares in the range of 50 percent require additional evidence of market power for an undertaking to be found violating Sec. 2 of the Sherman Act).

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17 See e.g. Hunt-Wesson Foods v. Ragu Foods, 627 F. 2d 919, 924–925 (9th Cir. 1990), cert. denied, 450 U.S. 921 (1981)

¹⁸ See P. AREEDA & H. HOVENKAMP, supra note 15, at 5–22.

¹⁹ *Ibid.*, p. 5–23.

²⁰ Illinois Tool Works Inc. et al., v. Independent Ink, Inc., 126 S.Ct. 1281 (2006).

Under U.S. antitrust law, there are two sources of antitrust liability that can apply when an IPR holder refuses to licence its IPR or charges an excessive price: monopolisation and attempts to monopolise under Sec. 2 of the Sherman Act on the one hand and the essential facilities doctrine on the other. The essential facilities doctrine has never been endorsed by the Supreme Court and has been the subject of numerous negative commentaries.²¹ It has now been reduced to such an extent that it hardly exists.²² Therefore, the focus is on Sec. 2 of the Sherman Act and its application to refusals to licence IPR.

The general rule is that a firm with market power may not refuse to deal with a competitor if it does not have a valid business reason and that the mere lure of additional profit is not a valid business justification.²³ However, as the case law shows, different rules apply for IPR. In Data General v. Grumann.²⁴ the First Circuit held that "while exclusionary conduct can include a monopolist's unilateral refusal to license a copyright, an author's desire to exclude others from the use of its copyrighted work is a presumptively valid business justification for any immediate harm to consumers". 25 According to this case, it seems that claimants seeking to establish an IPR holder's unlawful refusal to supply its protected product "may be required to show that the defendant's control over the downstream market in which the plaintiff competes extends above and beyond the control that naturally flows from the exercise of the IP rights themselves". 26 This is illustrated in the CSU litigation, 27 in which Xerox implemented a policy of not selling parts of its copiers to independent repair services unless they were also end users of the copiers. The court held that Xerox could refuse to sell its IPR-protected replacement parts to independent repairers. The court refused to look at Xerox's motivation for relying on intellectual property laws to refuse to sell its protected products. It held that it will not enquire in the IPR holder's "subjective motivation for exercising intellectual property rights even though his refusal to sell or licence his patented invention may have an anticompetitive effect, so long as it is not illegally extended beyond the statutory patent grant". 28 According to commentators, CSU means that so long as the patent owner does nothing more than to exclude another from making, using or selling his patented invention, the patentee does not violate antitrust laws, even if the exclusion leads to a monopoly in a market for a non-patented product.²⁹ Therefore.

²¹ See mainly P. AREEDA, "Essential Facilities: An Epithet in Need of Limiting Principles", 58 Antitrust L.J. 841 (1989). ²² Verizon Communications IC v. Trinko LLP, 540 U.S. 398 (2004). See also V. KORAH, "Refusals to Deal in IP, The After-Sales Market and Consumer Welfare", paper given at the 7th IEEM Intellectual Property Seminar, June 2006, at

<sup>4–5.
&</sup>lt;sup>23</sup> Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985).

²⁴ Data General Corp. v. Grumman Systems Support Corp., 761 F. Supp. 185 (D. Mass. 1991), aff'd., 36 F. 3d 1147 (1st Cir. 1994).

Ibid., 36 F. 3d, at 1181.

²⁶ G. McCurdy, "Intellectual Property and Competition: Does the Essential Facilities Doctrine Shed Any New Light", 2003 EIPR 472, at 476.

²⁷ CSU, L.L.C. v. Xerox Corp. 203 F. 3d 1322 (Fed. Cir. 2000), cert. denied, 531 U.S. 1143 (2001). ²⁸ Ibid.

²⁹ P. Boyle, P. Lister & J. Everett, Jr., "Antitrust Law at the Federal Circuit: Red Light or Green Light at the IP-Antitrust Intersection?", 69 Antitrust L.J. 739, at 754 (2002). This is in contrast with *Image Technical Services Inc. v. Eastman Kodak*, 125 F. 3d 1195 (9th Cir. 1997), *cert. denied*, 523 U.S. 1094 (1998), in which the district court, on remand, held that the business justification that Kodak advanced (its desire to protect its copyright and patent rights on parts) was pretextual. This was because there were thousands of parts and only 65 of them were patented. With the later CSU case, it seems however that when the IPR holder does not go beyond the bounds of the intellectual property laws, it is sheltered from antitrust liability.

unlike EU competition law, U.S. antitrust law does not question the initial balance made by the legislature. As a result, U.S. antitrust law is no remedy in case an IPR holder abuses its power by refusing to licence its IPR. It seems that if IPR holders do not go beyond the bounds of the intellectual property laws, they are sheltered from antitrust liability. In sum, U.S. antitrust law is of no use when the intellectual property statutory law is unbalanced. One more reason to achieve a good balance in intellectual property statutes ab initio.

Whilst the database right itself does often favour the acquisition of market power, it does however give excessive protection which will be discussed throughout the paper. The paper will also look at other database protections, keeping in mind these notions of market power and excessive protection.

2. Database Protection in the European Union and Market Power

2.1. Main Features of the Database Right

This section highlights the features of the database right that can give market power or excessive protection to database producers. It describes the relevant provisions of the Directive as interpreted by the ECJ in 2004. These rulings are the first and last to date to have interpreted the *sui generis* right at the highest level, thereby also harmonising the national courts' case law. It is to be noted that the rulings have substantially curtailed many of the features of the sui generis right which can give excessive protection or market power to database producers.³¹ Like any intellectual property right,³² the database right has a subject-matter of protection, a protection requirement, rights, exceptions and a term of protection. There are also rules on ownership of the right, but they are not relevant to determine market power or excessive protection. The ownership rules are therefore not reviewed.

2.1.1. Subject-Matter of Protection

The database right protects, of course, databases. Databases are defined as collections "of independent works, data or other materials, systematically or methodically arranged and individually accessible by electronic or other means" (Art. 1(2)) and can be in any form, e.g. on analogue or digital media (off or online) (Art. 1(1)). This definition is broad³³ as it includes databases in every form and can potentially include collections of tangible objects because

³⁰ Fixtures Marketing Ltd v. Organismos Prognostikon Agonon Podosfairou (OPAP) (case C-444/02), 1 CMLR 16 (2005), (hereinafter "OPAP"); Fixtures Marketing Ltd v. Oy Veikkaus AB (case C-46/02), 2005 ECDR 2, (hereinafter "Veikkaus"); Fixtures Marketing Ltd v. Svenska Spel AB (case C-338/02) 2005 ECDR 4 (hereinafter "Svenska Spel"); and The British Horseracing Board Ltd v. William Hill Organisation Ltd (case C-203/02) 1 CMLR 15 (2005) (hereinafter "BHB"), also available at: www.curia.eu.int. Briefly, the facts were that the defendants, several betting organisations, had copied and communicated to the public Fixtures Marketing's and the British Horseracing Board's fixtures without the latter's authorisation. The latter claimed they had database rights in these fixtures and that the defendants had infringed them. For comments on the decisions, see T. APLIN, "The ECJ Elucidates the Database Right", 2005 Intellectual Property Quarterly 204; M. DAVISON & P. B. HUGENHOLTZ, "Football Fixtures, Horseraces and Spin Offs: the ECJ Domesticates the Database Right", 2005 European Intellectual Property Review 113; E. DERCLAYE, "The ECJ Interprets the Database Sui Generis Right for the First Time", 30 European Law Review 420-430 (2005). See e.g. Commission Report, supra note 3, at 4.

The intellectual property nature of the database right is not disputed. See e.g. W. COPINGER & F. SKONE JAMES, "On Copyright" 18-04 (14th ed., Sweet & Maxwell, London 1999); V. BENSINGER, "Sui generis Schutz für Databanken, die EG-Datenbank Richtlinie vor dem Hintergrund des nordischen Rechts" 111 et seg. (Beck, Munich 1999); J. GASTER, "Der Rechtschutz von Databanken" 118 *et seq.*, 457 et seq. (Carl Heymanns, Cologne 1999). ³³ Paragraph 20 (OPAP).

of the breadth of the term "materials". 34

The three main criteria that restrict this generally broad definition are independence, systematic or methodical arrangement and individual accessibility of the elements. Independence means that the elements of a database "are separable from one another without their informative, literary, artistic, musical or other value being affected". 35 This means that if an element is taken out of the database or is added, this element still makes sense. Examples of inseparable elements are chapters of a novel or images of a film. Novels and films cannot be databases because the value of each of their elements is affected when separated from the whole. In other words, elements of a database must have autonomous, informative value.36 Systematic or methodical arrangement does not mean that this arrangement must be physically apparent, but there must be at least a means, such as an index, a table of contents, or a plan or method of classification that allows the retrieval of any independent material contained within the database.³⁷ The requirement of individual accessibility has not been directly construed by the ECJ and remains unclear to many commentators.³⁸ It probably coincides with the previous criterion. In conclusion, a very wide range of collections can be databases such as collections of novels, poems, films, musical works and of computer programs,³⁹ sports fixtures lists (i.e. the compilation of date, time and identity of teams in particular matches),⁴⁰ indexes, thesauruses,⁴¹ bibliographies, newspapers,⁴² customer lists,⁴³ geographical maps,⁴⁴ collections of hyperlinks, 45 timetables, cinema listings, 46 televisions listings, 47 telephone directories, 48 classifieds, 49 weekly hit parades, 50 collections of legal

³⁴ See e.g. A. QUAEDVLIEG, "Onafhankelijk, geordend en toegangkelijk: het object van het databankenrecht in de richtlijn", 9 Informatierecht/AMI 177 (2000); D. VISSER, "Carnaval in Oss: Variété, Databank of folkore?", 1999 Mediaforum 374.

⁵ Paragraph 29 (OPAP).

³⁶ Paragraph 33 (OPAP).

³⁷ Paragraph 30 (OPAP).

³⁸ E. DERCLAYE, "What is a Database? A Critical Analysis of the Definition of a Database in the European Database Directive and Suggestions for an International Definition", 5 JWIP 6, 1005-1010 (2002).

Recital 17

⁴⁰ Paragraphs 34 and 35 (OPAP); paras. 23 et seq. (BHB).

⁴¹ Recital 20.

Newspapers, journals and reviews were already considered as collections under Art. 2.5 of the Berne Convention. Vervielfältigung von Datenbankteilen (C-Netz), CA Berlin, 9 June available 2000. http://www.jurpc.de/rechtspr/20000216.htm; Consultant Immobilier v. Aptitudes Immobilier, T. Com. Nanterre, 14 May

^{2004,} available at: www.legalis.net.

44 A. STROWEL, "La loi du 31 août 1998 concernant la protection des bases de données", 1999 Journal des Tribunaux

<sup>298.

45</sup> Kidnet v. Babynet ("Linksammlung als Datenbank"), DC Cologne, 25 August 1999; 2000 CR 400; Datenbankeigenschaft von Hyperlinksammlungen, AC Rostock, 20 February 2001, available at: http://www.jurpc.de/rechtspr/20020082.htm; Elektronische Pressespiegel, DC Munich, 10 March 2002, available at: http://www.jurpc.de/rechtspr/20020121.htm.

⁴⁶ Spot v. Canal Numédia, TPI Bruxelles (réf.), 18 January 2001, 2002 Revue Ubiquité 95, comment DUSOLLIER.
⁴⁷ De Telegraaf v. NOS, CA The Hague, 30 January 2001, 2001 Mediaforum 94, comment OVERDIJK; 2001 AMI 73, comment COHEN JEHORAM.

Koninklijke KPN N.V. V. XBASE Software Ontwikkeling B.V., Pres. Arr. s' Gravenhage, 14 January 2000, 2000 Mediaforum 64, comment HUGENHOLTZ; 2000 Informatierecht/AMI 58, 71, comment BEUNEN, "Kanttekening bij KPN/XSO" 59; France Telecom v. MA Editions, T. Com. Paris, 18 June 1999, 99/4 DIT 57 (1999); 2000 D., Jurisp. 105, comment GOLDSTEIN; 1999 Expertises 398, comment BRÜNING; Tele-Info CD, German Federal Supreme Court, 6

See e.g. Berlin Online database, DC Berlin, 8 October 1998, 1999 AfP 649; Groupe Moniteur v. Observatoire des Marchés Publics, CA Paris, 18 June1999, 183 RIDA 316 (2000); Wegener v. Hunter Select, CA Leeuwarden 27 November 2002, available at: www.rechtspraak.nl; Cadremploi v. Keljob, DC Paris (réf.), 08 January 2001, 721 PIBD, III, 294-296 (2001); May 2001 CCE 27.

Zusammenstellung von Daten aus Chart-Listen, CA Munich, 10 October 2002, available at: http://www.jurpc.de/rechtsp/20030279.htm.

texts,⁵¹ trade fair catalogues,⁵² lists of financial reports and data,⁵³ lists of pharmaceutical products with their notices.⁵⁴ Therefore, although the definition of a database is still wide, it is not excessively wide, thanks to the three limiting requirements to which the ECJ has given clear interpretation.
2.1.2. Protection Requirement

The database right accrues when a qualitatively or quantitatively substantial investment in the obtaining, verifying or presenting of the materials is proven (Art. 7). The investment can be financial, material (acquisition of equipment e.g. computers) or human (number of employees, hours of work).⁵⁵ The Directive does not define substantiality and the ECJ did not venture in giving an interpretation. However, many national courts as well as the Advocate General in its Opinion in the Veikkaus case, 56 interpreted the requirement as being rather low. As a result, a few days work or a few hundred pounds or euros may be sufficient to qualify the database for protection.⁵⁷ A quantitatively substantial investment refers to the amount of money and/or time invested in the database while a qualitatively substantial investment refers to the effort and/or energy invested in the database.⁵⁸ The alternative requirement set out in the Directive (quantitatively or qualitatively) therefore allows protecting a database that required only a substantial investment in effort or energy rather than in money. Verifying the elements of a database means ensuring the reliability of the information contained in the database. monitoring the accuracy of the materials collected when the database was created and during its operation.⁵⁹ Presenting elements refers to "the resources used for the purpose of giving the database its function of processing information, that is to say those used for the systematic or methodical arrangement of the materials contained in that database and the organisation of their individual accessibility". 60 Thus, "verifying" and "presenting" have been given a straightforward dictionary meaning. On the other hand, "obtaining" the elements of a database exclusively means collecting them. This excludes their creation. 61 In addition, if the substantial investment in the collection, verification or presentation of the materials is inseparable from the substantial investment in their creation, the right will not subsist.62

⁵¹ Syllepsis v. Wolters Kluwer, TPI Bruxelles, 28 July 2000, 2000 AJT 10; Koninklijke Vermande v. Bojkovski, Pres. Arr. s' Gravenhage (réf.), 20 March 1998, 1998 Computerrecht 144; 1998 MMR 299; Übernahme einer Gesetzsammlung im Internet, DC Munich, 8 August 2002, available at: http://www.jurpc.de/rechtspr/20020369.htm.

⁵² Groupe Miller Freeman v. Neptune Verlag, DC Paris, 31 January 2001, available at: www.legalis.net; *Tigest v. Reed Exposition France et Salons Français et internationaux*, CA Paris, 12 September 2001, 187 Legipresse, Déc, 215–225 (2001); 35 D. 2895 (2001); 1 JCP 25–31 (2002), comment POLLAUD-DULIAN; 740 PIBD, III, at 198–201 (2002); *Construct Data Verlag v. Reed Expositions France*, CA Paris, 20 March 2002, 746 PIBD, III, 331–334 (2002). ⁵³ PR Line v. Newsinvest, DC Com. Nanterre, 16 May 2000, 5 JCP E 222 (2002), comment GABLIN; Sept. 2000 CCE

⁵³ PR Line v. Newsinvest, DC Com. Nanterre, 16 May 2000, 5 JCP E 222 (2002), comment GABLIN; Sept. 2000 CCE 13, comment Caron, aff'd by CA Versailles, 11 April 2002, July/August 2002 CCE 20–22, comment CARON.

⁵⁴ OCP Répartition v. Salvea, DC Com. Paris, 19 March 2004, available at: www.legalis.net.

⁵⁵ Recital 7 of the Directive.

⁵⁶ Opinion of Advocate General Stix-Hackl, 8 June 2004, case C-46/02 (*Veikkaus*), para. 49, available at: www.curia.eu.int.

⁵⁷ See e.g. Sonacotra v. Syndicat Sud Sonacotra, DC Paris, 25 April 2003, 2003 *Dalloz* 2819, comment C. LE STANC, available at: www.legalis.net; *Spot v. Canal Numédia*, TPI Bruxelles (réf.), 18 January 2001, 2002 Revue Ubiquité 95, comment S. DUSOLLIER.

⁵⁸ Paragraph 43 (OPAP).

⁵⁹ Paragraph 27 (*Svenska Spel*).

⁶⁰ Ihid

Paragraph 24 (Svenska Spel).

⁶² Paragraph 29–30 (Svenska Spel).

None of these requirements pose problem to database producers as they generally do invest a lot of money or energy (substantially enough) into obtaining, verifying or presenting their database's materials. However, certain databases will remain unprotected because the investment in the collection, verification or presentation of the materials is inseparable from the substantial investment in their creation. This is the case for many so-called "spin-off" databases such as sports fixtures, timetables, television listings and telephone directories. In this connection, the ECJ clearly restricted the scope of the sui generis right and has been acclaimed for doing so. A downside however is that database producers will try to protect their "spin-off" databases otherwise for instance by technological measures. 63 In sum, except for the (quite numerous) producers of "spin-off" databases, the database right gives, at the level of the protection requirement, substantial protection because of the low level of investment required and the three different alternative ways of attracting the protection (obtaining, verifying and presenting) and the two alternative types of investment.

2.1.3. Rights

The database right grants to the database maker the right to prevent the extraction and the reutilisation of a substantial part, evaluated quantitatively or qualitatively, of the contents of the protected database (Art. 7). The rights of extraction and reutilisation are very similar to the rights of reproduction and communication to the public in copyright law. Both direct and indirect extractions and reutilisations infringe the right.⁶⁴ However, extraction and reutilisation do not cover mere consultation of the database. 65 A substantial part is not defined, but it must represent a substantial investment. 66 A part which does not fulfil the requirement of a substantial part is automatically an insubstantial part. 67 The substantial part evaluated quantitatively refers to the volume of the data extracted or reutilised from the database and it must be assessed in relation to the volume of the contents of the whole of the database⁶⁸ while the substantial part evaluated qualitatively refers to the scale of investment in the obtaining, verification or presentation of the contents, regardless of whether that subject (or part thereof) represents a quantitatively substantial portion of the contents. 69 Users may therefore extract or reutilise insubstantial parts so long as they do not do it repeatedly and systematically so that the accumulation of insubstantial parts becomes a substantial part. The right is exhausted when the database producer first puts copies of the database on the market. In interpreting the exclusive rights, the ECJ has lessened the vagueness and the correlative legal uncertainty and often breadth of interpretation provoked by certain terms new to intellectual property. In doing so, it has consequently to some extent limited the scope of the right.

⁶³ Commission Report, supra note 3, at 24.

⁶⁴ Paragraph 53 (*BHB*).

⁶⁵ Paragraph 45 (*BHB*).
⁶⁶ Paragraph 45 (*BHB*).

⁶⁷ Paragraph 73 (*BHB*).

⁶⁸ Paragraph 70 (*BHB*).

⁶⁹ Paragraph 71 (*BHB*).

⁷⁰ Articles 7(5) and 8(1) as construed by the ECJ, see para. 86 (BHB).

Nevertheless, database producers remain well protected. Their rights are broad; if users extract or reutilise without permission a substantial part of the contents of their database (so long as this part represents a substantial investment), producers can sue them for infringement. This also means that producers can ask licences for use of substantial parts of the contents of their databases. However, exclusive rights within the database right are useless for producers of "spin-off" databases as the database right does not accrue.

2.1.4. Exceptions

The questions referred to the ECJ did not give it the opportunity to revisit the exceptions. The latter are therefore entirely governed by the Directive and national law. There are three exceptions to the rights of extraction and reutilisation: lawful users, i.e. those who have acquired a lawful copy of the database,71 may (a) extract a substantial part of the contents of a nonelectronic database for private purposes, (b) extract a substantial part of any database for the purposes of illustration for teaching or scientific research as long as it is not for commercial purposes and the source is indicated, and (c) extract and/or reutilise a substantial part of any database for the purposes of public security or an administrative or judicial procedure (Art. 9). However, these exceptions are all optional, so Member States were not required to implement them. Thus, the number of exceptions varies from Member State to Member State. For instance, the UK has chosen to implement only Art. 9(b) and (c).⁷² Some countries implemented all three exceptions (e.g. France and Belgium).⁷³ The right of the user to use insubstantial parts not amounting to a substantial part has been made imperative (Art. 15 of the Directive) but not the three optional exceptions.

Protection for database producers is only slightly reduced by these exceptions as they are very narrow. Persons who wish to use a substantial part of a database for their own private use (e.g. a football fan copying matches results of his or her favourite team since its creation in a personal notebook) does not infringe the rights of the database producer. In addition, this exception only applies to non-electronic databases. The second exception is so narrow that database producers should not worry about it. A teacher or researcher will not be able to use a substantial part of the contents of the database to teach or write an article or book; it would not fall in the exception as it would be prohibited reutilisation. They will have to request a licence. The only exception that may sometimes affect database producers is the third one.

⁷¹ No clear guidance is given in the Directive as to who is a lawful user. This is our preferred interpretation as well as the that of V. VANOVERMEIRE, "The Concept of the Lawful User in the Database Directive", 31 IIC 62, at 71 (2000); U. SUTHERSANEN, "A Comparative Review of Database Protection in the European Union and the United States", in: F. DESSEMONTET & R. GANI (eds.), Creative Ideas for Intellectual Property, the ATRIP Papers 2000-2001" 49 at 74 (Cédidac, Lausanne 2002); and H. VANHEES, "De juridische bescherming van databanken", 1999-2000 Rijkskundig Weekblad 1001, at 1007.

See regulations 20(1) and (2) of the Copyright and Rights in Databases Regulations of 18 December 1997, S.I.

¹⁹⁹⁷ n. 3032.

Article 23^{bis} of the Belgian Copyright Act as amended. Articles L.331-4 and 342-3-2 of the French Intellectual Property Code, Law n° 92-597 of 1 July 1992 as amended by Law n° 98-536 of 1 July 1998 and Law n° 2006-961 of 1st August 2006, available at: www.legifrance.gouv.fr. The teaching and research exception was introduced only in 2006, even if it only enters into force on 1 January 2009, see Art. L.342-3-4. For a comment on the new law, see A. LUCAS & P. SIRINELLI, 20 Propr. intell. 297 (2006). France went even further by granting an exception for handicapped persons, probably in contradiction with the Database Directive which seems to enumerate exceptions exhaustively (see Art. L.342-3-3).

2.1.5. Term of Protection

Databases are protected for 15 years from their completion or their publication (Art. 10 of the Directive). Furthermore, each time the database producer reinvests substantially in the obtaining, verifying or presenting the elements of its database and there is a substantial change, it receives a new term of protection of 15 years. The Directive, however, is unclear as to whether the right applies to the whole new database, which comprises the "old" elements (i.e. those whose term has expired), or only to the elements that have been newly included, verified or presented. Unfortunately, the ECJ did not take the opportunity it was given to clarify this question and it is therefore possible that constantly updated databases are perpetually protected. Hence, if a database producer constantly updates its database, it may well have a right *ad vitam eternam*.

In conclusion, although the ECJ has considerably reduced some of the excessively protective features of the database right,74 the right remains very strong: the definitions of a database and of the rights are broad, the protection requirement is low, the exceptions are narrow and the term is potentially eternal. However, it is a misconception that the database right grants a monopoly on information in all cases. ⁷⁵ As has been seen above, producers of spin-off databases often remain without rights. Second, monopoly power can only arise if the database producer is the only one to detain the information on the market. This is not always the case. It generally only occurs when the database producer creates the information, but in this case in order to obtain protection, it will have to prove a separate substantial investment in the obtaining, verification or presentation of the information, which is difficult. Another way to gain monopoly power is to be the only one to record data occurring in nature. This is the case, for instance, concerning the results of sporting events, space and weather data, which often require specialised equipment for measurement. However, whether recording is "collecting" or "creating" is unclear; therefore, in many cases, the investment in recording the coordinates of new stars or planets may not grant a database right to the database producer. The cases where a monopoly on information will arise are therefore extremely reduced. In all other cases, database producers will be in direct competition with one another, all drawing the data from the public domain. Nevertheless, the scarcity and narrowness of the exceptions and the potentially perpetual term of protection are features that still give too much protection to database producers.

2.2. Additional Types of Protection Available to Database Producers

2.2.1. Unfair Competition Law

Article 13 of the Directive expressly safeguards the use of other types of protection in addition to the database right. Some of those, like unfair competition law, may reinforce the database producers' protection under the

⁷⁵ As had been argued by some commentators, see supra note 2.

 $^{^{74}}_{--}$ See Commission Report, supra note 3, at 4.

database right. Portions of some unfair competition law specifically protect investments, including investments in the making of databases, by punishing those who copy them. This theory, called "parasitism", exists for instance in Belgium and France⁷⁶ but not in Ireland nor the UK.⁷⁷ Parasitism is generally defined as the reproduction of someone's creation even if there is no risk of confusion.⁷⁸ Thus, parasitism protects databases already protected by the database right in an almost identical way. This leads to the granting of two separate damages to the database producer, which cover the same infringing act.⁷⁹ This of course grants more power to all database producers, whether they have market power or not, as they obtain double damages. In addition to being contrary to the paradigm of intellectual property under which efforts should (implicitly) be rewarded only once, this granting of double damages is an infringement of the principle of *non bis in idem*.

2.2.2. Contract Law

Article 13 of the Directive also allows database producers to use contract law to protect their databases. This entails the inclusion of provisions in the contract that override the several limits of the database right (i.e. the exhaustion principle, the term and the three optional exceptions, but not the right of the user to use insubstantial parts not amounting to a substantial part which has been made imperative). The power that such contracts give to database producers varies in function of their position on the market. If they are monopolists, then such contracts will considerably reinforce their market power as they will grant even more power than the Directive grants them. For instance, they may be able, under most European laws, to override all the exceptions, as well as enforce a perpetual term and even annihilate the principle of exhaustion. Nevertheless, the free movement of goods principle, competition law and abuse of rights theories may play a role in limiting the effects of these contracts. When there are several databases on the market, i.e. when producers all draw from a source which is in the public domain, such contracts may be used by producers. As there is competition in the market, if a user does not want to adhere to such overarching contractual conditions, he or she can purchase a copy of another database. Alternatively, users may want to agree to such terms if the price to pay is less (there is an advantage to be gained from the more limited use allowed in the contract). In this case, contracts restricting the limits of the database right do not grant more market power or excessive protection to database producers.⁸⁰

2.2.3. Technological Protection and Anti-Circumvention Measures

As stated above, the right of the user to use insubstantial parts not amounting to a substantial part has been made imperative as far as contracts are

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⁷⁷ See e.g. W. CORNISH, "Unfair Competition and the Consumer in England", 1974 IIC 73, at 74.

⁷⁶ See e.g. M. Buydens, "La protection de la quasi-création", (Larcier, Bruxelles 1993); J. Passa, "Contrefaçon et concurrence deloyale", Publications de L'IRPI n. 15 (Litec, Paris 1997); P. LE TOURNEAU "Folles idées sur les idées", 4 CCE 8 (2001).

⁷⁸ French and Belgian case law fluctuates: sometimes a risk of confusion is required sometimes it is not, and some courts require some investment in the copied creation, while some do not.

⁷⁹ Not all courts grant two separate damages, but some do. *See e.g. Jataka v. EIP*, DC Strasbourg, 22 July 2003; *OCP Répartition v. Salvea*, DC Com. Paris, 19 March 2004; *Consultant Immobilier v. Aptitudes Immobilier*, DC Com. Nanterre, 14 May 2004, all available at: www.legalis.net.

Nanterre, 14 May 2004, all available at: www.legalis.net.

80 For more developments on this issue see E. DERCLAYE, "An Economic Analysis of the Contractual Protection of Databases", 2 U. III. Journal of Law, Technology and Policy 247–271 (2005).

concerned (Art. 15 of the Directive) but not the three optional exceptions. Therefore, database producers can override the exceptions through technological protection measures (TPMs), although Art. 6(4) of the Copyright Directive⁸¹ must be respected. This means that users may circumvent TPMs for the purposes of illustration of research and teaching as well as for the purposes of public security and administrative or judicial procedures if such an agreement with the right holders is reached. Other agreements could include means (such as a decryption key) given by right holders to users to benefit from their exceptions rather than an agreement allowing users to hack TPMs outright. If there is no agreement, then the state has ensure that users benefit from the listed exceptions by forcing right holders to give users the means of benefiting from the exceptions. Specific mechanisms are in place in every Member State. 82 As the exception for private copying is not included in the list of Art. 6(4), if a TPM prevents private copying, in effect users cannot benefit from the exception. However, Member States may decide to ensure that users can also benefit from this exception. In addition, it seems clear that the use of an insubstantial part may not lawfully be prevented.83 Article 6(4) in fine nonetheless provides that TPMs prevail over users' exceptions in the event that works are provided on-demand.⁸⁴ Finally, database producers can circumvent the exhaustion principle as this is not prohibited in the Database Directive. This is, however, subject to the free movement of goods principle and should therefore be prohibited.

In conclusion, the combination of the database right and the additional protection conferred by contracts, unfair competition law and TPMs therefore often grant excessive protection to European database producers and reinforce the market power that some database producers may enjoy through the database right. Monopolists benefit from a super-monopoly whilst producers with a lower market share can considerably reinforce their protection by overriding the limits of the database right or by acting under parasitism to either get double damages or get an injunction they could not obtain if acting only in infringement of the database right.

3. Database Protection in the United States and Market Power

3.1. Main Types of Protection Available to American Database Producers

Traditionally, database contents were protected by copyright under the sweat

⁸¹ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, OJ L167/10, 22 June 2001.

² For Belgium, see Art. 79^{bis} of the Copyright Act as amended; for France, see new Art. L.331-8 of the Copyright act

as amended (Act n°2006-961 of 1 August 2006, available at: www.legifrance.gouv.fr).

83 Paragraph 4, indents 1–3 of Art. 6 of the Copyright Directive apply only to copyright law. Paragraph 4, indent 5 simply says that Art. 6(4) applies also to the database right. Therefore, it seems clear that Member States must, if no agreement is found between right holders and users, force right holders to allow benefit from two optional exceptions to the database right (as they are similar to those mentioned in Art. 6(4), indents 1-3 relating to copyright). In our view, right holders should be forced to allow lawful users to extract and reutilise insubstantial parts (Art. 8 of the Database Directive). Indeed, even if Art. 15 of the Database Directive provides for the imperativity of Art. 8 only as far as contracts are concerned, and that it is not clear that Art. 6.4 of the Copyright Directive safeguards Art. 8 a fortiori, right holders should not be allowed to override this provision by TPMs. It would indeed be shocking and illogical that this exception prevails over the will of contractual parties but could be overturned by the strictly unilateral will of the

[&]quot;The provisions of the first and second subparagraphs shall not apply to works or other subject-matter made available to the public on agreed contractual terms in such a way that members of the public may access them from a place and at a time individually chosen by them".

of the brow criterion of originality. But with the *Feist* case,⁸⁵ this protection vanished. Three main types of protection were left to database producers: misappropriation, contracts and TPMs.

3.1.1. Misappropriation

Misappropriation does not grant market power to database producers, and it grants them very little protection, if any at all. First, as a result of Erie Railroad v. Tompkins, 86 the misappropriation tort is state law rather than federal law. In addition, it does not exist in all states. 87 This already makes misappropriation an uncertain protection for databases producers to rely on. Second, in states where it exists, judicial application of the doctrine varies significantly from state to state.88 In addition, although it is not binding, the Restatement of the Law (Third) of Unfair Competition, adopted in 1995, rejects the tort of misappropriation.⁸⁹ This does not encourage states to adopt the tort. Courts generally, but not always, follow the Restatement. Third, the tort, as redefined for the last time in National Basketball Association v. Motorola ("NBA"),90 is very narrow and is most certainly pre-empted. 91 Therefore, the tort is totally unreliable. The 2nd Circuit Court's statement in NBA that the narrow rule of INS⁹² survives pre-emption arguably is mere dictum, since NBA's facts did not fit the rule. Also, the court's analysis of the legislative history as conclusive that a "hot-news", INS-like claim survives pre-emption is erroneous since it relied on a House committee report⁹³ written before an exception allowing misappropriation to survive pre-emption was removed from Sec. 301 of the Copyright Act. Thus, misappropriation as described by the court should be

⁸⁵ 499 U.S. 340 (1991).

⁸⁶ 304 U.S. 64 (1938). The Supreme Court held that there was no federal common law. S. RIESENFELD "The Law of Trade Marks and Unfair Competition in the United States", in: D. THOMPSON (ed.), "English Law and the Concept of Unfair Competition", in: "Unfair Competition, Some Comparative Aspects of the Law of the U.S., Germany, France and the UK," 1, at 3 (The British Institute of International and Comparative Law, London 1966); E. SEASE, "Misappropriation is Seventy-Five Years Old; Should We Bury It or Revive It?", 70 Notre Dame Law Review 781, at 790 (1994)

⁸⁷ A 1994 survey found that only 14 states adopted the misappropriation doctrine; SEASE, *id.*, at 801.

⁸⁸ J. Tessensohn, "The Devil's in the Details: The Quest for Legal Protection of Computer Databases and the Collections of Information Act, H.R. 2652", 38 IDEA, Journal of Law & Technology 439, at 463 (1998); S. McGee, "Cooling Off the Hot-News Exception: *National Basketball Ass'n v. Motorola, Inc.*, 105 F. 3d 841 (2d Cir. 1997)", 66 University of Cincinnati Law Review 1019, at 1042 (1998); J. CONLEY, M. BROWN & R. BRYAN, "Database Protection in a Digital World: Why the United States Should Decline to Follow the European Model", 9 Information and Communications Technology Law 27, at 43 (2000).

Communications Technology Law 27, at 43 (2000).

89 Section 38. The Restatement was drafted by the American Law Institute (http://www.ali.org). It has no official status and is not mandatory but serves as a guide for states.

⁹⁰ 105 F. 3d 841 (2nd Cir. 1997). Misappropriation was first recognised by the Supreme Court in 1918 in *International News Service v. Associated Press*, 248 U.S. 215 (1918) ("*INS*"). C. McManis, "Unfair Trade Practices in a Nutshell" 8 (3rd ed., West, Saint Paul, Min. 1991); A. KAMPERMAN SANDERS, "Unfair Competition Law, The Protection of Intellectual and Industrial Creativity" 13 et seq. (Clarendon Press, Oxford 1997); J. GINSBURG "Copyright, Common Law, and Sui Generis Protection of Databases in The United States and Abroad", 66 University of Cincinnati Law Review 151, at 157–158 (1997). *INS* was a federal common law decision, therefore it lost its status of binding precedent by virtue of *Erie* (*supra* note 86).

Since the amendment of the US Copyright Act in 1976, Sec. 301 provides that state law which touches upon copyrightable subject-matter and grants rights equivalent to copyright is pre-empted. This includes acts of private parties amounting to state legislation and even subject-matter unprotected by copyright because of unoriginality (for instance databases). See ProCD v. Zeidenberg, 86 F. 3d 1447 (7th Cir. 1996); S. McGee, supra note 88, at 1022–1023 ("Uncopyrightable works may also fall within the subject matter of the Copyright Act") and NBA v. Motorola, supra note 90. Misappropriation and contract are two possible state protection candidates for pre-emption. In addition, even if a state claim survives Sec. 301 pre-emption, it can still be pre-empted under the Supremacy Clause of the Constitution (Art. VI(2)). For more detail on pre-emption, see e.g. L. GUIBAULT, "Copyright limitations and contracts: An Analysis of the Contractual Overridability of Limitations on Copyright", 231 (Kluwer Law International, The Hague 2002); H. ABRAMS, "Copyright, Misappropriation and Pre-Emption: Constitutional Limits of State Law Protection", 1983 Supreme Court Review 509, at 548–549; D. DJAVAHERIAN "Hot News and No Cold Facts: NBA v. Motorola and the Protection of Database Contents", 5 Richmond Journal of Law and Technology 8, at 88–90 (1998).

⁹³ H.R. No. 94-1476 at 132 (1976), reprinted in 1976 U.S.C.C.A.N. 5659, 5748.

pre-empted.94

Even if misappropriation as interpreted in *NBA* survived pre-emption under Sec. 301, there is a real threat that once a case reaches the Supreme Court, it will pre-empt misappropriation under the Supremacy Clause. ⁹⁵ In short, nobody knows what the law is until the Supreme Court rules since it is uncertain whether the ruling survives pre-emption under the Supremacy Clause.

Even if it survived all pre-emption, the misappropriation doctrine is a very narrow and poor protection for database producers. The necessary conditions under *NBA* are as follows. Database producers can only prevent copying of databases made of time-sensitive information which have been created at a cost (investment). In addition, there must be direct competition between the database producer and the copier; free-riding by the defendant and the defendant's copying must so reduce the database producer's incentive to create that he or she would not create the database or the quality of the database would be reduced. ⁹⁶ This is a concept of misappropriation which is much narrower than the theory of parasitism and the database right provided in the Directive. It is very difficult to win a case because the factual requirements are rarely satisfied. ⁹⁷ In addition, because of the decision's lack of clarity, it is unclear when exactly the misappropriation doctrine applies. ⁹⁸

In conclusion, misappropriation provides very little protection to database producers, especially because of its flimsy legal basis. If it provides protection at all, it grants it exclusively to database producers of time-sensitive information and only against competitors.

3.1.2. Contract

As a result, database producers rely on contracts to protect their databases as the *ProCD* case illustrates well. ⁹⁹ As in Europe, a distinction must be drawn between sole source databases (databases of monopolist producers) and multiple source databases (databases produced from a common public domain source). A second distinction must be drawn between fully negotiated contracts and adhesion contracts. Fully negotiated contracts, even if they are restrictive, will never give market power. Because of the privity principle, they do not bind third parties. Unlike intellectual property rights, they lack *erga omnes* power. As such contracts do not bind subsequent users, they do not protect database makers well because they cannot act against third parties who reproduce or make available the whole or substantial parts of their

⁹⁴ See e.g. H. ABRAMS, supra note 91, at 578–580; N. KHADDER, "National Basketball Association v. Motorola, Inc.", 13 Berkeley Technology Law Journal 3, at 14–15 (1998); S. McGEE, supra note 88, at 1040–1041.

⁹⁵ In *Feist* (*supra* note 85), the last precedent on point, the Supreme Court seemed adamant that certain unfair competition claims survive in order to protect sweat of the brow efforts. However, the Supreme Court did not say more, and it is therefore unclear under which conditions such claims would survive pre-emption.
⁹⁶ 105 F. 3d 841, 845 (2nd Cir. 1997).

⁹⁷ J. BOYARSKI, "The Heist of Feist: Protection for Collections of Information and the Possible Federalization of 'Hot News'", 1999 Cardozo Law Review 871, at 893.

⁹⁸ GINSBURG, *supra* note 90, at 160–161.
⁹⁹ *ProCD v. Zeidenberg*, *supra* note 91 (shrink-wrap licence protecting uncopyrightable database restricting the use of the database to non-commercial purposes not pre-empted because contracts are different from rights granted in the Copyright Act, they are not exclusive rights) followed by *Bowers v. Baystate Technologies*, *Inc.*, 320 F. 3d 1317 (Fed. Cir. Mass. 2003) (shrink-wrap licence prohibiting reverse engineering of copyrighted software not pre-empted).

database. This is valid for both sole source and multiple source databases.

On the other hand, adhesion contracts are extremely close, if not identical, to rights against the world and can be said to constitute private legislation similar to state law. Therefore, they can be said to be as efficient as intellectual property rights and more so if they override the limits of intellectual property. If the database is multiple source, by definition, there will be competition in the market and the adhesion contract will not override the limits of an adequate database protection. But if the database is sole source, there are significant chances that the contract will override those limits. Database producers in monopoly positions know that end-users have no choice but to accept their conditions since end-users have no alternative product to turn to. In this case, contractual protection will grant considerable market power.

However, it is very likely that adhesion contracts which provide database protection equivalent to copyright and a fortiori those which provide even more protection, are pre-empted under Sec. 301 of the Copyright Act. Courts are split on this issue, ¹⁰¹ which makes the availability of contract law as a means to protect databases very unreliable. In addition, even if such contracts survive Sec. 301 pre-emption, they still have to pass the Supremacy Clause pre-emption. ¹⁰² Until the Supreme Court rules on this issue, the law is uncertain.

In conclusion, whilst the use of adhesion contracts for sole source databases may in theory confer high market power to database producers, the federal and constitutional validity of adhesion contracts overriding copyright limits is very uncertain. Until *ProCD* is reversed, however, database producers still rely on it to gain the edge over database copyists.

3.1.3. Technological Protection and Anti-Circumvention Measures

Database producers can apply TPMs to their databases. Nothing in the law prevents them from doing so. However, this protection could be pre-empted. Are technological measures rights equivalent to copyright? Copyright's exclusive rights prevent mainly reproduction and communication of protected works to the public and their effect is *erga omnes*. Technological measures do the same, they impose themselves on any user (e.g. a person borrowing a copy of a work from a library or renting it), not only the party bound by a contract with the right holder. They go beyond because they also generally prevent access to the work's copies. Therefore, using TPMs on copies of databases may expose the right holder to pre-emption. However, no court has ever had to judge this issue, and in the meantime, as with contracts, U.S.

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¹⁰⁰ RYK J., on *Bowers, supra* note ■, at 1337; D. NIMMER, E. BROW & G. FRISCHLING, "The Metamorphosis of Contract Into Expand", 87 California Law Review 17, at 60 (1999); G. FOUNDS, "Shrinkwrap and Clickwrap Agreements: 2B or not 2B?", 52 Federal Communications Law Journal 99, at 115 (2000); GINSBURG, *supra* note 90, at 167; D. KARJALA, "Federal Preemption of Shrinkwrap and On-Line Licenses", 22 University of Dayton Law Review 511, 540; N. ELKIN-KOREN, "Copyright Policy and the Limits of Freedom of Contract", 12 Berk. Tech. L.J. 103–104 (1997); M. LEMLEY, "Shrinkwrap in Cyberspace", 35 Jurimetrics Journal 320 (1995).

¹⁰¹ There are mainly two conflicting precedents: *Vault v. Quaid*, 847 F. 2d 255 (5th Cir. 1988) (state law overriding copyright limits and shrink-wrap licence based on it pre-empted) and *ProCD* (*supra* note 91).

¹⁰² In *ProCD*, the court did not analyse the issue. If the analysis in *Vault* is applied to *ProCD*'s facts, the licence may well have been pre-empted under the Supremacy Clause. L. Guibault, *supra* note 88, at 235 citing D. Nimmer, E. Brow & G. Frischling, *supra* note 100, at 63; D. Karjala, *supra* note 100, at 540. This is because *ProCD* was restricting the use of facts that both the Supreme Court (in the *Feist* case) and Congress (in the Copyright Act) decided to leave unprotected.

database producers may use TPMs effectively to protect their database contents.

However, TPMs can be circumvented. This is why the 1996 WIPO Internet Treaties provided against the circumvention of TPMs. In 1998, the Digital Millennium Copyright Act ("DMCA") transposed the WIPO Internet Treaties into American copyright law. Section 1201(a)(1)(A) of the Copyright Act states that "[n]o person shall circumvent a technological measure that effectively controls access to a work protected under this title (...)." (emphasis added). Therefore, it would seem that this article does not protect database producers whose databases are not copyrightable or do not contain copyrighted works, i.e. databases of raw information. As a result, if a TPM is hacked, database producers have no legal remedy (except if their database is protected by contract). As for those databases that are copyrightable or include copyrighted works, although there is no explicit exception in the DMCA for circumvention for purposes of fair use, Sec. 1201(c)(1) states that "[n]othing in this section shall affect rights, remedies, limitations, or defenses to copyright infringement, including fair use, under this title". Thus, such database producers may use TPMs to protect their databases. But when a user wishes to benefit from an exception, the TPM must yield to his or her request. Unfortunately, courts have interpreted the DMCA restrictively; as a result, no general fair-use defence exists for the circumvention of a TPM. 103 Users may not circumvent TPMs for general, fair-use purposes but must rely on the very limited exceptions provided for in Sec. 1201(d)-(j), which do not include the use of a work for research, teaching, criticism or review or for reporting current events.

Therefore, when TPMs protect non-copyright databases or databases which do not contain copyrighted works they, like contracts and unfair competition, do not grant much protection to database producers. First, because they may be pre-empted, and second because they may be circumvented with impunity. (Of course, the clever database producer will somehow make its database copyrightable or include some copyrighted works in order to prevent this.) Nevertheless, until a court rules that such use of TPMs is pre-empted or if users are not able to crack them, database producers in monopoly positions and those that have high market shares will continue to enjoy significant market power while the others benefit from excessive protection.

3.2. Additional Types of Protection Available to Database Producers

Database producers have also invoked the state common law action for trespass before the U.S. courts. Under this cause of action, a person is liable if he or she interfered with the claimant's possessory rights in personal property without authorisation and that this use harmed the claimant. Some courts have upheld actions in case a defendant extracts data from the claimant's online database. This goes further than the traditional copyright

¹⁰³ For an account, see S. DUSOLLIER, "Droit d'auteur et protection des oeuvres dans l'univers numérique, Droits et exceptions à la lumière des dispositifs de verrouillage des oeuvres" 191–201 (Larcier, Bruxelles 2005).

For more details, see J. BAND, "New Theories of Database Protection", 2003 Managing IP 50–53.
 eBay v. Bidder's Edge, 100 F. supp. 2d 1058 (N.D. Ca 2000); Register.com v. Verio, 126 F. Supp. 2d 238 (s.d.n.y. 2000); Oyster Software v. Forms Processing, 2001 US Dist Lexis 22520 (N.D. cal. 2001). Contra, Ticketmaster Corp. v. Tickets.com, 2000 WL 1887522.

sweat of the brow as extracting even a very small amount of data could be unlawful. In the same vein, under the Computer Fraud and Abuse Act ("CFAA"), 106 a person may be liable if he or she extracts data from a web site without authorisation as long as it causes a loss of at least \$5,000. Thus, the CFAA does not apply to off-line databases.

These seemingly powerful protections carry some flaws. Trespass to chattels may be pre-empted if it grants copyright-like rights. But it also may not, as it only protects against the damage to the physical entity being trespassed upon. In turn, this means it does not protect against the copying of data, leaving database producers without protection against pure copying. 107 As to the CFAA, the power under which it was taken (the Commerce Clause) may conflict with the Intellectual Property Clause, and therefore it may be unconstitutional. 108 In this regard, the protection, let alone the market power granted by these types of protection, is, if not inexistent, very uncertain.

Conclusion

At the close of this analysis, the respective situations in Europe and the U.S. have become clearer. In Europe, the database right is clearly too protective in some respects (the term is potentially perpetual and the exceptions are too narrow and too scarce). It should therefore be amended to correct these flaws. 109 The following main changes should be made: to add important exceptions (such as criticism and review, use by the press)¹¹⁰ and include their imperativity and exclude old data in the renewal of protection. 111 In addition, to avoid market power, compulsory licences for commercial uses should be provided for at least with respect to sole source databases. 112 These changes would alleviate the recourse to competition law. A clear prohibition of the action against parasitism for database-right protected databases should also be inserted. 113 Otherwise, as wisely interpreted by the ECJ, the database right appears rather balanced and has not led to the monopolisation of information.

On the other hand, the U.S. legal landscape simultaneously provides too much and too little protection to database producers. Adhesion contracts, TPMs, as well as the trespass to chattels and the CFAA causes of actions may grant considerable protection and consecutive market power in some cases to database producers as everything a database producer can dream up in order to protect its database is virtually allowed – without limits. However, the legal bases of these protections are unreliable, which makes them vulnerable at

107 C. ROUSH, "Database Legislation: Changing Technologies Require Revised Laws", 2002 U. Dayton L.R. 300.

See also A. KUR ET AL., supra note 3, at 557-558.

¹⁰⁶ 18 U.S.C. § 1030, 2002.

J. BAND, *supra* note 104, at 50–53; C. ROUSH, *supra* note 104, at 296.

Specific suggestions are found in the author's thesis, "The Legal Protection of Databases", (Edward Elgar,

forthcoming, 2007).

110 A. KUR ET AL., supra note 3, at 557, advocate an alignment of the sui generis right exceptions with the copyright

A. KUR ET AL., supra note 3, do not touch upon this issue. Competitors should only be granted these compulsory licences when certain conditions are met in order not to frustrate original investments. The IMS Health criteria are a good starting point. Arguably, the condition of "new product" should be transformed into a "better product" and a cross-licence should be granted by the competitor improving the product to the original producer.

any moment. If the Supreme Court decides those protections are pre-empted, they vanish, leaving database producers without defense against copying. In the meantime, being state laws (with the exception of the CFAA), their application varies from state to state, rendering the law all the more uncertain. The situation in the U.S. is thus far from ideal.

This analysis shows that the Commission's report must be nuanced. It may be true that the U.S. database industry does better than that of Europe, but the results are based on a few replies to questionnaires and a single source, the Gale Directory of Databases. Drawing serious conclusions on the basis of this report that the database right is inadequate and must be repealed is not serious. Further studies should be made including theoretical and empirical economic studies to further enlighten these first findings. Several reasons may explain the success of the American database sector. A reason why the U.S. database industry might be thriving may be due to the language of the databases in question and not the type of protection available. Many more people, especially in the business and scientific communities where most databases are commercialised, use English than Portuguese, Finnish, Danish or Hungarian.

Database producers, like any other intellectual property right holder, deserve legal protection for their efforts in collecting, verifying and/or presenting information. The database right provides a good basis on which to work to adopt an international model of database protection. 114 The U.S. and other countries should seriously consider adopting such an intellectual property right. Resistance since 1996 has been fierce, and if some are to be believed. a database right will never see the light of day across the Atlantic. 115 However, such a carefully crafted model (i.e. a database right allowing the use of other protections such as contracts, unfair competition and TPMs but securing imperativity of the database right's limits and internalising competition law remedies by incorporating compulsory licences) would arguably be the best protection for both producers and users. It would clarify the current U.S. legal chaos and sharpen the contours of database protection so that users' interests are clearly respected. In fact, the current unbridled use of several powerful types of protection made possible in the U.S. may well be why database producers do not want a well-defined, narrower database right. Some may argue that such protection would be unconstitutional, but this issue has already been well researched and the results are that a carefully crafted database right should clearly pass the constitutional hurdle. 116 In the

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¹¹⁴ Why unfair competition (parasitism or misappropriation) is not is beyond the scope of this paper but is explained in detail in the author's thesis, *supra* note 109.

¹¹⁵ See the statement of MARYBETH PETERS, the U.S. Register of Copyright in November 2004 http://news.com.com/Anti-P2P+bill+may+slip+past+legislative+rush/2100-1028_3-5458680.html.

The overwhelming majority of authors believe that even a carefully crafted intellectual property right protecting investment in database creation can be constitutional. See J. GINSBURG, "No 'Sweat'? Copyright and Other Protection of Works of Information after Feist v. Rural Telephone", 92 Columbia Law Review 338 (1992); P. GOLDSTEIN, "Copyright and Legislation: The Kastenmeyer Years", 55 Law & Contemporary Problems 79 (1992); M. GERDES, "Getting Beyond Constitutionally Mandated Originality as a Prerequisite for Federal Copyright Protection", 24 Arizona State Law Journal 1461 (1992); A. NARAYANAN, "Standards of Protection for Databases in the European Community and the United States: Feist and The Myth of Creative Originality", 27 George Washington Journal of International Law and Economics 457 (1993–1994); J. WOLKEN, "Just the Facts, Ma'am. A Case for Uniform Federal Regulation of Information Databases in the New Information Age", 48 Syracuse Law Review 1263 (1998); Y. BENKLER, "Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information", 2000 Berkeley Technology Law Journal 535; P. BENDER, "The Constitutionality of Proposed

meantime, theoretical and empirical economics studies on the database right are highly desirable.

Federal Database Protection Legislation", 28 University of Dayton Law Review 143, at 149 (2002); P. HEALD & S. SHERRY, "Implied Limits on the Legislative Power: The Intellectual Property Clause as an Absolute Constraint on Congress", 2000 University of Illinois Law Review 1119; J. HUGHES, "How Extra-Copyright Protection of Databases Can Be Constitutional", 28 University of Dayton Law Review 159 (2002).