

Back to the Future: Learning from the Past in the Database Debate

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The appropriate form of legal protection for databases has been increasingly contentious since the early 1990s. A very high level of protection for databases, as seen in the EU Directive and the sui generis database protection proposals modelled upon it, could effectively result in the database owner acquiring a monopoly in the information contained within the database. On the other hand, failure to protect databases adequately could result in an increase in market failure as original databases, particularly electronic databases, are vulnerable to misappropriation. In such cases, database production could decline. Alternatively, database owners may adopt contractual and/or technological measures of protection that would deny public access to the information contained in databases.

In this paper, the author argues that "pre-modern" copyright cases, that is, copyright cases decided, in the main, prior to 1850, may provide a potentially effective model of protection for databases. In these early cases judges were careful, in their grant of copyright, to avoid the trap of granting a proprietary right in information. Infringement would be established only where a second comer's use of a work was illegitimate, this issue being determined by the extent to which the subsequent work was intended to substitute, or would prejudice the commercial value of, the original work. New works based on existing ones were encouraged and non-competing uses did not constitute infringement.

A sui generis database scheme based upon the principles of these cases, coupled with a shorter period of protection than is available under copyright, could provide the balance between access and incentive that has proved so elusive.

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[W]hile I shall think myself bound to secure every man in the enjoyment of his copyright, one must not put manacles upon science.

—Lord Ellenborough, *Cary v. Kearsley*
4 Esp. 168, 170–171; 170 ER 679, 680.

I. INTRODUCTION

Although fact-based works have long been the subject of some contention in copyright, database protection has been of concern since at least the early 1990s. In particular, two developments fostered debate: the European Database Directive,¹ which proposed a very stringent database protection regime, and the decision in *Feist Publications, Inc. v. Rural Telephone Service*,² which denied copyright protection to anything other than the original aspects of selection and arrangement in databases. These two developments highlight the central problem of database protection: how do we provide sufficient legal protection for database makers to ensure that databases are produced? At the same time, how do we ensure that legal protection does not stifle knowledge and progress by denying public access to database contents?

My argument in this paper is that early copyright cases may provide an effective model for the protection of databases. This is because these cases were careful, in their grant of copyright, to avoid the trap of granting a proprietary right in information. Infringement would be established only where a second comer's use of a work was illegitimate. Illegitimacy of use was determined by the extent to which the subsequent work was intended to substitute, or would prejudice the commercial value of, the original work. New works based on existing ones were encouraged and non-competing uses did not constitute infringement.

In proposing this argument, I am not suggesting that databases should necessarily be protected under existing copyright regimes. Rather, my argument is that it would be desirable to introduce *sui generis* legislation based upon early copyright principles. Such a model would ensure protection against market failure for database owners, while protecting the public interest in the information databases contain. Most existing *sui generis* models, however, tend to be extreme reactions to the perceived underprotection of databases. They have the potential to undermine the common good significantly by granting exclusive monopolies in databases and thus in the information that they contain.

The paper supports the works of such commentators as Reichman, Uhler, and Samuelson,³ who have argued against the overprotection of databases by existing

¹ Council Directive 96/9, 1996 O.J. (L77/20).

² 499 U.S. 340, 362 (1991).

³ J.H. Reichman & Paul F. Uhler, *Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology*, 14 BERKELEY TECH. L.J. 793,

sui generis proposals, and Ginsburg,⁴ who has argued for a better understanding of copyright principles and their application to databases. Its specific focus, however, is on the form of protection offered to factual works in early copyright cases. Its scope is limited to a general consideration of the principles of protection in these cases, and their potential application to databases. Its recommendations are formulated with both the United States and the Australian jurisdictions in mind. For this reason, both jurisdictions will be cited when making references to existing legal principles and legislation.

There are some limitations to the scope of this paper. First, the paper does not seek to provide a definitive model of database protection. Rather, its purpose is to contribute to the current debate by providing some insights into early copyright decisions. Second, any constitutional limitations that may impact upon the ability of the United States Congress to implement *sui generis* database protection⁵ will not be considered. Third, the particular problems of international harmonization of database law will not be addressed other than in a general sense.

Part II of this paper will outline the issues raised by database protection and examine the assumptions that underlie the current database debate; Part III will outline the ways in which databases are currently protected by law; and Part IV will examine the protection extended to fact-based works in early copyright cases. The paper concludes with some suggestions for a model of database protection based upon early copyright principles.

II. THE DATABASE PROTECTION DEBATE

A dictionary definition of "data" is "known facts or things used as a basis for inference or reckoning; quantities or characters operated on by a computer."⁶ A database, in turn, is defined as "a structured set of data held in a computer, especially one that is accessible in various ways."⁷ Data is "compiled," that is, collected or accumulated into a database.⁸

837-38 (1999); J.H. Reichman & Pamela Samuelson, *Intellectual Property Rights in Data?*, 50 VAND. L. REV. 51, 55 (1997).

⁴ Jane C. Ginsburg, *Copyright, Common Law, and sui generis Protection of Databases in the United States and Abroad*, 66 U. CIN. L. REV. 151, 152 (1997) [hereinafter *Protection of Databases*]; Jane C. Ginsburg, *Creation and Commercial Value: Copyright Protection of Works of Information*, 90 COLUM. L. REV. 1865, 1871 (1990) [hereinafter Ginsburg, *Creation and Commercial Value*].

⁵ See Terry M. Sanks, *Database Protection: National and International Attempts to Provide Legal Protection for Databases*, 25 FLA. ST. U. L. REV. 991, 1011-12 (1998).

⁶ THE CONCISE OXFORD DICTIONARY OF CURRENT ENGLISH 294 (8th ed. 1990). The word is derived from the Latin past participle of "dare," give.

⁷ This definition tends to be misleading: a database does not have to be in electronic form. Paper-based databases, such as phone books and television directories, are still in common use.

Prior to the widespread use of computer technology, compilations and lists existed primarily on paper.⁹ They were prepared by the labor-intensive process of using filing and card-index systems.¹⁰ Since the 1960s, compiling on computers has made this process considerably easier. Electronic compilation offers faster retrieval speed, greater storage capacity, and increased ease and accuracy of information.¹¹ Further technological developments have contributed to the widespread usage of databases. For instance, the ready availability of scanners and other equipment enables the conversion of print compilations to electronic

For practical purposes, however, even these are being overtaken by internet databases. The European Database Directive also defines a database as "a collection of independent works, data or other independent materials arranged in a systematic or methodical way and capable of being accessed by electronic or other means." Council Directive 96/9, art. 1(1), 1996 O.J. (L 77/20) 24. The World Intellectual Property Organization (WIPO) Draft Treaty, art. 2(1) WIPO Doc. CRNR/DC/6 (Aug. 30, 1996), included non-electronic databases in its scope. It defined a database as "a collection of independent works, data or other materials arranged in a systematic or methodical way and capable of being accessed by electronic or other means." The recent United States proposals also adopt wide definitions. See The Consumer and Investor Access to Information Act, H.R. 1858, 106th Cong. § 101(1)(A) (1999). The bill defined "database" as:

a collection of a large number of discrete items of information that have been collected and organized in a single place, or in such a way as to be accessible through a single source, through the investment of substantial monetary or other resources, for the purpose of providing access to those discrete items of information by users of the database. Such term does not include works that are combined and ordered in a logical progression or other meaningful way in order to tell a story, communicate a message, represent an idea, or achieve a result.

Id.; see also The Collections of Information Antipiracy Act, H.R. 354, 106th Cong. § 1401(1) (1999) (using the term "collection of information," rather than database, to mean "information that has been collected and has been organized for the purpose of bringing discrete items of information together in one place or through one source so that persons may access them"); *Id.* § 1401(2) (defining "information" as "facts, data, works of authorship, or any other intangible material capable of being collected and organized in a systematic way"). In Australia, the Copyright Law Review Committee (CLRC) and the Copyright Convergence Group (CCG) also took the view that "databases," for the purposes of legal protection, could be electronic or non-electronic. See CLRC, COMPUTER SOFTWARE PROTECTION para. 14.03 (Apr. 1995); CCG, HIGHWAYS TO CHANGE-COPYRIGHT IN THE NEW COMMUNICATIONS ENVIRONMENT 6 (Aug. 1994).

⁸ Ironically, "compile" is derived originally from the Latin for "plunder or plagiarize." OXFORD DICTIONARY, *supra* note 6, at 232.

⁹ Sanks, *supra* note 5, at 991.

¹⁰ Clive D. Thorne, *The Infringement of Database Compilations: A Case for Reform?*, 9 EUR. INTELL. PROP. REV. 331, 331 (1991). They were also difficult to reproduce, thus providing an built-in deterrent to copyright infringement. See Natalia Yastreboff, *Copyright for Online Databases on the Internet* (Oct. 1997), available at <http://www.gtlaw.com.au/pubs/copyrightonline.html> (originally published in AUSTL. INTELL. PROP. L. BULL. (May 1996)).

¹¹ Jack B. Hicks, *Copyright and Computer Databases: Is Traditional Compilation Law Adequate?*, 65 TEX. L. REV. 993, 995 (1987); Sanks, *supra* note 5, at 992.

form.¹² The availability of telecommunications, particularly the Internet,¹³ enables easy dissemination of data products. This leads to the rapid production of technological innovations, and in turn, the generation of more data. Electronic publishing thus potentially makes both data and research results available at very low costs worldwide.¹⁴

It is hardly surprising, then, that the database market appears to be growing rapidly. Although it is difficult to identify the "database market" with precision, Hunsucker observes that commercial competition is waged in at least three broad markets.¹⁵ These are the "one-stop-shopping market," where general information content is offered to a broad customer base; the "problem-focused" market, where specific information content focused on particular problems is offered to industry groups; and the "industry-focused" market where both general and specific information content is offered to specific industry and professional markets. The data collection costs within these three markets varies and in turn pricing structures may vary within market segments.¹⁶ Reichman and Samuelson¹⁷ note, however, the anecdotal evidence that suggests that the market for commercially distributed databases tends to be characterized by a lack of competition. A database originator, once the initial investment has been made in the database, tends to take the relevant market segment as a whole. When a database maker is the sole source of the relevant data, digital technology can strengthen this

¹² Reichman & Samuelson, *supra* note 3, at 67. Digital technologies have also revolutionized the nature of information that can be stored in database form. Virtually anything that can be converted to a digital form, such as compact disks and graphic images, can be the subject of database access. Yastreboff, *supra* note 10.

¹³ The Internet is a worldwide network of interconnected small computer networks, developed from the United States Department of Defense's Advanced Research Project Association Network (ARPANET). Sanks, *supra* note 5, at 992 n.7; Yastreboff, *supra* note 10.

¹⁴ Reichman & Samuelson, *supra* note 3, at 65.

¹⁵ G.M. Hunsucker, *The European Database Directive: Regional Stepping Stone to an International Model?*, 7 FORDHAM INTELL. PROP., MEDIA & ENT. L.J. 697, 712 (1997). This is not the only way that the database industry can be classified. See Yastreboff, *supra* note 10 (referring to industry practices based upon three database compilation models: the hierarchical model, the relational model, and the network model).

¹⁶ As a general rule, database makers in the "one-stop shopping" market serve a broad market and incur lower data collection costs, so access fees are lower; database owners providing specialized information to a narrower market incur higher collection costs and so charge higher access fees. Hunsucker, *supra* note 15, at 712. Pricing models vary: database owners may charge a basic fee for unlimited access; or a basic fee for a fixed level of access and addition time based fees thereafter; or may charge on the number of searches performed or the volume of information retrieved or extracted. Alternatively, they may allow free public access to some information, and charge for access to more specialized information. Some database owners may charge by a mixture of such methods. *Id.* at 713.

¹⁷ Reichman & Samuelson, *supra* note 3, at 70.

dominant market position. At the same time, the technologies that facilitate the creation of databases also facilitate their piracy.

As I noted in my introduction, the database debate surfaced with the European Union Directive, which proposed a very highly protective database regime, and the decision in *Feist*, which denied copyright protection to anything other than the original aspects of selection and arrangement in databases. The ensuing debate has revolved around the central tension between incentive and access highlighted by these two events.

There are at least three assumptions that underlie this debate that should be made overt. First, databases are socially useful and society should encourage their production; second, investment in, and development of, databases can be encouraged by well-designed legal protection; and third, legal protection should not grant a monopoly in database contents so as to deny access to those who would build upon prior knowledge or to stifle the free flow of information.

A. *Databases Are Socially Useful and Should Be the Subject of Investment*

It is difficult to deny the ubiquitous¹⁸ and socially useful nature of databases. Numerous commentators have already noted the importance of databases to our economy¹⁹ and to our cultural, scientific, and technical progress.²⁰ Given this

¹⁸ Databases, like other types of intellectual property, are indivisible, inexhaustible, and ubiquitous. See J.H. Reichman, *Charting the Collapse of the Patent-Copyright Dichotomy: Premises for a Restructured International Property System*, 13 CARDOZO ARTS & ENT. L.J. 475, 486 (1995); Reichman & Samuelson, *supra* note 3, at 59 n.37. As Thomas Jefferson noted:

If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into possession of everyone, and the receiver cannot dispossess himself of it.

Thomas Jefferson, *quoted in* T. Barlow, *Selling Wine without Bottles—The Economy of Mind on the Global Net*, 7 AUSTL. INTELL. PROP. L. BULL. 2, 2 (1994). *But see* COMM. ON INTELLECTUAL PROP. RIGHTS AND THE EMERGING INFO. INFRASTRUCTURE, NAT'L RESEARCH COUNCIL, *THE DIGITAL DILEMMA: INTELLECTUAL PROPERTY IN THE INFORMATION AGE* xxii (2000) [hereinafter *DIGITAL DILEMMA*] (explaining that electronic information goods are not necessarily irrevocable, fixed, or public in the same way as physical goods; access can be withheld at the discretion of the publisher, and old versions are often overwritten by new). The executive summary to *Digital Dilemma* is reprinted in this issue. 62 OHIO ST. L.J. 951 (2001).

¹⁹ J.H. Reichman, *Electronic Information Tools—The Outer Edge of World Intellectual Property Law*, 17 U. DAYTON L. REV. 797, 820 (1992) ("electronic information processing constitutes the engine of twenty-first century economic development"). Between 1991 and 1997, the number of databases in the U.S. increased from 7,637 to 10,338. There has also been a marked commercialization of the database industry. In 1977, 78% of databases were produced by the public sector, but by 1997 this figure had dropped to 22% while the private sector share

social utility, it is also hard to argue with the proposition that we should encourage investment in databases.²¹

However, database investment may be suboptimal²² if market failure occurs. Market failure has always been a problem for creative works that may be copied easily.²³ The vulnerability of products that bear their know-how on their face enables second comers to undercut the originator in the market. This is because the second comer does not need to cover the costs incurred by the originator. The originator, therefore, lacks a natural lead-time in which to recoup his or her investment and make a profit. Thus, database authors could find their economic returns too small to justify the cost of creating a database, and they may be dissuaded from creating further databases.²⁴

increased to 78%. See DR. MARTHA E. WILLIAMS, *THE STATE OF DATABASES TODAY* (1999), quoted in H.R. REP. NO. 106-350, at 9 (1999).

²⁰ See H.R. REP. NO. 106-349, at 9 (1999) (“[D]atabases are essential tools for improving productivity, advancing education and training. They are also the linchpins of a world-leading dynamic commercial information industry in the United States”); H.R. REP. NO. 106-350, at 8 (1999) (“The culture of science involves combining new data with existing databases to create more powerful research tools. Allowing scientists to reuse facts, rather than requiring them to ‘reinvent the wheel,’ ensures that research moves forward. Research and development is an important foundation for all commercial activity.”); Preamble, WIPO DOC. CRNR/DC/6 (Aug. 30, 1996) (“Databases are . . . an essential tool for promoting economic, cultural and technological advancement.”).

²¹ H.R. REP. NO. 106-349, at 10 (1999):

Developing, compiling, distributing and maintaining commercially significant collections requires substantial investments of time, personnel, and effort and money. . . . But several recent legal and technological developments threaten to derail this progress by eroding the incentives for continued investment needed to maintain and build upon the U.S. lead in world markets for electronic information resources.

²² Glynn S. Lunney, Jr., *Reexamining Copyright's Incentives-Access Paradigm*, 49 VAND. L. REV. 483, 492 (1996) (arguing that, under its present scope, copyright provides more protection for creativity and labor when invested in an entertaining work than when invested in a useful product). In consequence, we have too many entertaining works, at the expense of having too little of everything else. Failure to protect databases could aggravate this problem. *Id.*

²³ This has long been recognized by intellectual property law. One of the early arguments for intellectual property protection focused upon the ease with which a work could be copied. In practical terms, the need to reverse engineer inventions provided them with a natural lead-time that books did not have. Thus, the legal protection of machines on this argument was less significant than was the case with books. BRAD SHERMAN & LIONEL BENTLY, *THE MAKING OF MODERN INTELLECTUAL PROPERTY LAW: THE BRITISH EXPERIENCE, 1760-1911*, at 147 (1999).

²⁴ Reichman, *supra* note 19, at 835.

As noted above, new technologies not only facilitate database creation but also exacerbate market failure. Copying, remanipulation,²⁵ and dissemination are facilitated by new technologies. Thus, the ability to infringe copyright in database compilations has increased. At the same time, the incentive to do so has increased because of the potential financial rewards offered by successful infringement.²⁶ An online database faces different challenges to one produced on a form of secondary storage, such as a CD-ROM: detection of infringement is more difficult; and the parts taken may not be substantial, thus making it difficult for a plaintiff to sustain an action for copyright infringement.²⁷

Database piracy may not necessarily be motivated by financial reward. A number of commentators have already noted the problems posed by "information Samaritans." These are parties who, for non-economic reasons, take data from databases without the authorization of the database owner, and make it freely available to the public.²⁸

Database piracy may deter investment in databases, and consequently database owners increase the pressure for legal protection. Legal protection also has an international dimension. The failure of particular nations to provide adequate legal protection could disadvantage them in the international trade arena if other nations introduce more rigorous database protection.²⁹ This brings me to the second assumption in the database debate.

²⁵ New technologies facilitate not only re-manipulation to avoid infringement but also the preparation of derivative works. See Ginsburg, *Creation and Commercial Value*, *supra* note 4, at 1902-03.

²⁶ Thorne, *supra* note 10, at 331.

²⁷ The facilitation of extraction, redistribution, and recombination of several databases may mean that segments are more likely to be taken instead of the entire database. Ann Monotti, *Copyright Protection of Computerised Databases*, 3 AUSTL. INTEL. PROP. J. 135, 157 (1992).

²⁸ Hunsucker, *supra* note 15, at 702. As an illustration of this problem in the context of computer software, see *United States v. LaMacchia*, 871 F. Supp. 535, 536 (D. Mass. 1994). In this case, LaMacchia devised a scheme to allow free dissemination of popular software and games through an electronic bulletin board. Hunsucker argues that the behavior of such information samaritans destroys incentive to produce databases just as much as does "traditional" piracy.

²⁹ 106 H.R. REP. NO. 106-349, at 10-11 (1999):

[The EU Directive] creates a new *sui generis* form of property right for the legal protection of databases to supplement copyright. However, it denies this new protection to collections of information originating in the U.S. or other countries unless the other country offers "comparable" protection to collections originating in the European Union. When fully implemented, the European Directive could place United States firms at an enormous competitive disadvantage throughout the entire European market.

B. *Investment in Databases Can Be Encouraged by Well-Designed Legal Protection*

Proponents of increased legal protection for databases argue that, without legal protection, there will be less incentive to create databases. They also argue that the quality of databases that are created will deteriorate. This is because fewer individuals will invest the time and money necessary to develop and maintain new and improved databases.³⁰ There is no very clear evidence, however, to show that well-designed legal protection will encourage database protection. Indeed, despite the allegation of underprotection of databases in the United States since *Feist*, the database industry has flourished.³¹ On the other hand, the traditional domination of the database market by the United States and the United Kingdom has been attributed to their strong copyright protection of databases.³²

The assumption that resources can be directed into the production of socially desirable works is the traditional justification for intellectual property regimes generally,³³ and copyright protection in particular.³⁴ Copyright regimes³⁵ generally create a right in the owner of sufficiently original³⁶ "artistic" or

³⁰ Sanks, *supra* note 5, at 993; *see also* Yastreboff, *supra* note 10 (arguing that there is an oversupply of databases on the Internet, but a lack of quality databases available freely: "This may reflect the unwillingness of people to invest into the production of quality databases on the Internet due to the perceived ineffectiveness of copyright protection in this area.").

³¹ *See supra* note 19. Some parties opposed to increased protection have argued that existing legal, contractual, and technological protections are sufficient. U.S. COPYRIGHT OFFICE, REPORT ON LEGAL PROTECTION FOR DATABASES: A REPORT OF THE REGISTER OF COPYRIGHTS 68 (1997). It has also been argued that adequate incentives already exist for compilations, and market failure can be corrected in various ways. Original compilers can recoup their costs in ways other than selling the information. *See* Alfred C. Yen, *The Legacy of Feist: Consequences of the Weak Connection between Copyright and the Economics of Public Goods*, 52 OHIO ST. L.J. 1343, 1369-71 (1991).

³² Hunsucker, *supra* note 15, at 704 n.11 (quoting 1995 figures that showed that Great Britain garnered 65% of the revenues from the European Union database market; going on to pose the question as to whether it is merely a coincidence that the two countries with the greatest database market share, Great Britain and the United States, have traditionally granted strong copyright protection to such works under the "sweat of the brow" theory).

³³ Reichman, *supra* note 18, at 480-96.

³⁴ For a comprehensive discussion of the incentive/access balance in copyright, see Lunney, *supra* note 22. Some commentators, however, have questioned the economic necessity for copyright. *See, e.g.,* Stephen Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies and Computer Programs*, 84 HARV. L. REV. 281 (1970).

³⁵ Copyright Act, 1968 (Austl.); Copyright Act of 1976, 17 U.S.C. §§ 101 *et seq.* (1994 & Supp. IV 1998).

³⁶ 17 U.S.C. § 102(a) (1994); Copyright Act, 1968 ch. 2 (Austl.). "Originality" in the United Kingdom and Australia means only that the work should originate with the author, that

“literary” works³⁷ and creative effort other than works, such as films or sound recordings,³⁸ to prevent unauthorized copying of the work or effort protected. The period of copyright is relatively long.³⁹ The author, however, does not have a monopoly upon the use of the work in the sense that a patent provides such a monopoly.⁴⁰ Another author may independently create a similar work without penalty.⁴¹

Copyright is at odds with competition policies to the extent that it creates an exclusive property right in creative effort.⁴² Its continued existence is traditionally justified on the basis that a limited monopoly⁴³ right is necessary to act as an

is, that the work is not a copy of an existing work. *Univ. of London Press Ltd. v. Univ. Tutorial Press Ltd.* (1916) 2 Ch. 601; *Kalamazoo (Aus) Pty. Ltd. v. Compact Bus. Sys. Pty. Ltd.* (1985) 5 I.P.R. 213. In the United States, works must be original in the sense of originating from the author, and possess a minimum standard of creativity. *Feist Publ’ns, Inc. v. Rural Tel. Serv. Co., Inc.*, 499 U.S. 340 (1991). This requirement can be traced to Supreme Court decisions in the late nineteenth century. *See, e.g., Higgins v. Keuffel*, 140 U.S. 428 (1891); *Burrow-Giles Lithographic Co. v. Saronoy*, 111 U.S. 53 (1884).

³⁷ These terms are used in a very wide sense. *See, e.g., Ladbroke (Football) Ltd. v. William Hill (Football) Ltd.* (1964) 1 W.L.R. 273 (football coupons as literary works); *Sands & McDougall Pty. Ltd. v. Robinson* (1917) 23 C.L.R. 49 (a map as an artistic work); *Kalamazoo (Aus) Pty. Ltd. v. Compact Bus. Sys. Pty. Ltd.* (1985) 5 I.P.R. 213 (accounting forms as literary works); *Univ. of London Press Ltd. v. Univ. Tutorial Press Ltd.* (1916) 2 Ch. 601 (examination papers as literary works).

³⁸ 17 U.S.C. § 102 (1994); Copyright Act, 1968 div. 6 (Austl.).

³⁹ 17 U.S.C. § 304 (1994 & Supp. IV 1998); Copyright Act, 1968 § 33 (Austl.).

⁴⁰ Patent regimes protect not only against copying, but against independent creation. 35 U.S.C. §§ 1–376 (1994); Patents Act, 1990 (Austl.).

⁴¹ *Corelli v. Gray* (1913) 29 T.L.R. 570.

⁴² Wendy J. Gordon, *On Owning Information: Intellectual Property and the Restitutionary Impulse*, 78 VA. L. REV. 149, 158 (1992).

⁴³ *See Millar v. Taylor* (1769) 4 Burr. 157, 196 (Yates, J., dissenting):

“That every man is intitled to the *fruits of his own labour*,” I readily admit. But he can only be entitled to this, *according to the fixed constitution of things*; and *subject to the general rights of mankind*, and the general rules of property. He must not expect that these fruits shall be *eternal*; that he is to monopolize them to infinity; that every vegetation and increase shall be confined to *himself alone*, and *never revert to the common mass*.

In the United States context, see *Sony Corp. of Am. v. Universal City Studios, Inc.*, 464 U.S. 417, 429 (1984), reh’g denied, 465 U.S. 1112 (1984):

The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors and inventors by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.

incentive⁴⁴ for authors to produce and disseminate more works.⁴⁵ Its anticompetitive effects are also tolerated on public policy grounds because copyright leaves facts and ideas in the public domain.⁴⁶ This allows competitors to produce diverse works from the same raw material.⁴⁷ Even the particular expression of the work enters the public domain at the expiry of the term of copyright protection.⁴⁸ Further, the monopolistic effects of copyright are ameliorated by fair use exceptions⁴⁹ that excuse certain unauthorized uses that are considered to be socially beneficial.⁵⁰

⁴⁴ The quid pro quo inherent in copyright, that is, the benefits that flow to the author are given in return for public access to the author's work, is discussed at length by Robert A. Kreiss, *Accessibility and Commercialization in Copyright Theory*, 43 UCLA L. REV. 1 (1995); see also DIGITAL DILEMMA, *supra* note 18, at xxii (concluding that the tradition of providing for a degree of access to published materials, established in the world of physical artifacts, should be continued in the digital context).

⁴⁵ Lunney, *supra* note 22, at 485. Some commentators have observed, however, that the incentive to create new works may not be affected by copyright protection. See, e.g., Reichman & Samuelson, *supra* note 3 at 59 n.35, who argue that most compilers of scientific data have been more concerned with credit or recognition for their work, than securing the economic advantages that may attach to that work. This is a point recognized early in copyright history: "Many of our best and noblest authors have published their works from more generous views than pecuniary profit. Some have written for fame, and the benefit of mankind." *Wheaton v. Peters*, 33 U.S. 591, 676 (1834) (Thompson, J., dissenting); see also Kreiss, *supra* note 44, at 16 (emphasizing that commercialization, rather than creation of works is the focus of copyright regimes; also considering the argument that some authors are not motivated by economic considerations to be irrelevant—most authors put in the hard work because of the potential to earn income from the commercialization of new works); Alfred C. Yen, *Restoring the Natural Law: Copyright as Labor and Possession*, 51 OHIO ST. L.J. 517, 537 (1990) (arguing that the fact that copyright extends protection to works for which no economic incentive is required to induce creation is merely evidence of the natural law tradition in copyright).

⁴⁶ *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 558 (1985) ("By establishing a marketable right to the use of one's expression, copyright supplies the economic incentive to create and disseminate ideas."); see also Wendy J. Gordon, *supra* note 42, at 154 n.19. For a comprehensive discussion of copyright and the public domain, see Jessica Litman, *The Public Domain*, 39 EMORY L.J. 965 (1990).

⁴⁷ Kreiss, *supra* note 44, at 5.

⁴⁸ Generally, the term of copyright protection for works and other creative effort is the life of the author plus a defined term of around fifty to seventy years, depending upon the jurisdiction. See 17 U.S.C. §§ 302–05 (1994 & Supp. IV 1998); Copyright Act, 1968 §§ 33, 93–96 (Austl.).

⁴⁹ See Kreiss, *supra* note 44, at 5. In the Australian context, the Copyright Act, 1968 §§ 40–42 (Austl.), provides specific exceptions to infringement for the fair dealings of research or study, criticism or review, and news reporting. There is, however, no general "fair use" provision as in the United States. In the United States, 17 U.S.C. § 107 allows reuse of copyright expression for the purposes of criticism, classroom, or research use and parody.

However, the balance between incentive and access is a fine one.⁵¹ In particular, subject matter that falls somewhere between the traditional copyright/patent regimes⁵² creates difficulties for legal regimes. Legal protection needs to be designed carefully⁵³ so as to avoid the cycle of overprotection and underprotection that characterizes such legal hybrids.⁵⁴ The design of such protection is particularly difficult in the case of subject matter in which innovation

Section 108 of the Copyright Act allows for library copying privileges. Section 109(a) gives a limitation of exclusive distribution right to first sale of copy for most works, and Section 110 provides that public performance and display may be exempted for non-profit activities and organizations.

⁵⁰ Reichman, *supra* note 19, at 821.

⁵¹ A point taken up in DIGITAL DILEMMA, *supra* note 18, at xviii–xix, observing that, “The information infrastructure has . . . the potential to demolish a careful balancing of public good and private interest that has emerged from the evolution of U.S. intellectual property law over the past 200 years.” The report claims that the challenge is to provide sufficient control to authors to motivate them; but not so much control as to threaten important policy goals. The balance is not, however, straightforward. For instance, see Polivy who notes that the argument for public access to fact works such as databases can be turned on its head, so as to argue that societal need for fact works justifies greater incentives for authors. Denise R. Polivy, *Feist Applied: Imagination Protects, but Perspiration Persists—The Bases of Copyright Protection for Factual Compilations*, 8 FORDHAM INTELL. PROP., MEDIA & ENT. L.J. 773 (1998).

⁵² J.H. Reichman, *Legal Hybrids between the Patent and Copyright Paradigms*, 94 COLUM. L. REV. 2432 (1994). Reichman has argued that electronic information works, such as databases, function in a way more analogous to tools than to literary works and often exhibit the same low levels of creative authorship that characterize the bulk of commercial designs. See Reichman, *supra* note 19, at 801. This was a point recognized in Australia in the report of the CLRC, 1995, 245–47, which noted that “computer-generated materials” be removed from the “works” paradigm of the Copyright Act, 1968 (Austl.) and transferred within a new category of “subject-matter other than works.” “Computer-generated” was defined in Recommendation 2.42(b) as meaning “that the material is generated by computer in circumstances such that there is no human author of the material.” However, “works” would still include works made with the assistance of computer programs. These recommendations have not been implemented to date.

⁵³ Often, the adoption of *sui generis* legislation is the result of trade-related concerns, and something of a “knee jerk” reaction. This was certainly the case in Australia with the Designs Act, 1906 (Austl.), a tiresomely untidy piece of legislation adopted so that Australia could take the benefit of the Paris Convention. Its reform has occupied numerous review committees over many years with little success. See also P. Baron, *Where Art Meets Science and Beauty Meets Utility: The Strange World of Industrial Design Protection*, 18 U. TAS. L. REV. 194, 204 (1999).

⁵⁴ With regard to databases and similar electronic information tools, Reichman argues that chronic underprotection could give way to bouts of overprotection as courts try to fill the gap in intellectual property law with expansive applications of unfair competition law. Reichman, *supra* note 19, at 803.

is incremental or cumulative in nature.⁵⁵ A monopoly in the underlying ideas or facts could prevent further development. Most of the *sui generis* schemes or proposals of database protection have been criticized for overprotecting databases.⁵⁶ Many would restrict traditional “fair uses,” such as use or extraction for research purposes.⁵⁷ This brings me to the third assumption: that legal protection should not give the database owner a monopoly in the database contents.

C. Any Scheme of Legal Protection Should Not Prevent Public Access to Database Contents, or Impair the Free Flow of Information

Although it is considered socially desirable to encourage database production, it is also considered socially desirable that information and ideas remain in the public domain. It is necessary that facts and ideas remain accessible⁵⁸ to consumers and competitors so as to increase knowledge and produce more informational goods.⁵⁹ Even proponents of strong database protection assume that some degree of public access to information is necessary.⁶⁰

The principle that legal protection of private interests should not impede information flows has long been a central principle of copyright protection. As noted above, copyright protects only the expression of a work, and gives no monopoly to the ideas or facts contained within it.⁶¹ An idea does not become a

⁵⁵ *Id.* at 819 (agreeing with Karjala, that innovation in information science occurs through sequential and cumulative improvements); see also Reichman, *supra* note 52 (considering industrial design, an area where most innovation is of necessity incremental, to be the archetypal legal hybrid).

⁵⁶ See, e.g., Reichman & Uhler, *supra* note 3; Reichman and Samuelson, *supra* note 3; Ginsburg, *Creation and Commercial Value*, *supra* note 4; Cynthia M. Bott, *Protection of Information Products: Balancing Commercial Reality and the Public Domain*, 67 U. CIN. L. REV. 237 (1998).

⁵⁷ Reichman and Uhler, *supra* note 3, at 808–09.

⁵⁸ “[A]ccess’ and ‘accessibility’ are used to refer to the public’s ability to learn the ideas and expression from a copyrighted work.” Kreiss, *supra* note 44, at 10. Kreiss maintains that the two conditions of access are that users of a work must be able to obtain a physical copy of the work, and the ideas and expression must be available in human-understandable terms.

⁵⁹ Litman, *supra* note 46, at 965; see also Kreiss, *supra* note 44, at 7 (maintaining that access to new works, rather than the quantity of new works produced, is the essential goal of the copyright system).

⁶⁰ See, e.g., Hunsucker, *supra* note 15, at 705 (arguing that exclusive licensing arrangements with sole source data producers should be deemed void against public policy).

⁶¹ *Kenrick & Co. v. Lawrence & Co.* (1890) 25 Q.B.D. 99; *Donoghue v. Allied Newspapers Ltd.* (1937) Ch. 106. In the United States context, see *Feist Publications, Inc. v. Rural Telephone Service*, 499 U.S. 340 (1991). Most commentators, such as Kreiss, maintain that this rule exists so as to ensure a strong public domain. Kreiss, *supra* note 44. Thus, Kreiss

“work” (and thus qualify potentially for copyright protection) until it is reduced to writing or some other material form.⁶² Until the idea is reduced to a material form, it is free for anyone to use. Further, copyright exempts certain socially-desirable uses from infringement.⁶³

Databases and their protection have challenged this third assumption in at least two ways. The first is that *sui generis* database protection models tend to be based upon competition policy rather than promotion of cultural policies.⁶⁴ Thus, they do not necessarily place the same emphasis as copyright upon ensuring a high degree of public access.⁶⁵ The second challenge arises from the paradox of new technologies. Just as these technologies facilitate piracy of existing databases, they potentially provide database publishers with *greater* protection for informational works than is available under copyright.⁶⁶ Digital telecommunications networks have enabled publishers to control the use of information goods directly by contract, without having to rely upon the state to correct market failure.⁶⁷ These technologies allow electronic publishers to track and charge consumers for every electronic access. On this basis, even browsing

sees the idea/expression dichotomy as ensuring that the public is supplied with diverse expressions of the same ideas. *But see* Yen, *supra* note 45, at 538 (arguing that this is because ideas are so incorporeal that the law cannot make them into property).

⁶² Section 102(a) of the U.S. Copyright Act provides that “[c]opyright protection subsists, in accordance with this title, in original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.” Under the Copyright Act, 1968 § 22.1. (Austl.), an idea becomes a work when it is “first reduced to writing or some other material form.” Section 10.1 then defines “material form” as “any form (whether visible or not) of storage from which the work or adaptation, or a substantial part of the work or adaptation, can be reproduced,” while “writing” is defined as “a mode of representing or reproducing words, figures or symbols in a visible form.”

⁶³ *See supra* note 49.

⁶⁴ Reichman, *supra* note 52, at 2476. “Although the traditional justification for copyright can provide a measure of support for copyright protection for online databases, this rationale has been superseded in today’s world of global trade by the fear of international trade sanctions and loss in international competitiveness.” Yastreboff, *supra* note 10.

⁶⁵ *See* Yen, *supra* note 45, at 521 (arguing that copyright cannot be understood, nor validly applied in terms of economic efficiency alone, but must be read with its natural law origins in mind).

⁶⁶ Julie E. Cohen, *Copyright and the Jurisprudence of Self-Help*, 13 BERKELEY TECH. L.J. 1089, 1090 (1998). This paradox is the “combination of promise and peril that make up the digital dilemma.” New technologies promise more access while imperiling one means of incentive; they can improve access to information, but inhibit access in new ways; they promise greater equality of access to information, but the potential to worsen the gap between the information rich and the information poor. DIGITAL DILEMMA, *supra* note 18, at xviii.

⁶⁷ Reichman & Uhler, *supra* note 3, at 796.

and scientific uses, previously exempt under copyright laws, may incur charges.⁶⁸ For those that cannot pay the price, access can be denied. Thus, where such forms of "self-help" are available,⁶⁹ database owners may see the limits on information ownership imposed by copyright as "optional restrictions" that can be avoided.⁷⁰

Thus, with regard to databases, digital technology challenges existing legal structures in two opposing ways. Digital technologies aggravate market failure in some cases, because they facilitate piracy. In other cases, they endow the originator with abnormal market power.⁷¹

III. EXISTING MODELS OF PROTECTION ARE UNSATISFACTORY

A. *Copyright Protection: Too Much Protection or Too Little?*

Copyright protection is the traditional means of protecting databases. Copyright establishes a surrogate form of ownership by erecting a system of "portable fences." These fences, "valid against the world and backed by the state," accompany creative effort in its "journey from mind to mind."⁷²

For the purposes of copyright protection, databases are "compilations."⁷³ Compilations, like other works of "low authorial presence,"⁷⁴ have been

⁶⁸ Reichman & Samuelson, *supra* note 3, at 71.

⁶⁹ Such forms of self help may also have privacy implications. These implications are outside the scope of this paper. See Cohen, *supra* note 66, at 1108.

⁷⁰ *Id.* at 1090.

⁷¹ Reichman & Samuelson, *supra* note 3, at 65-66.

⁷² Reichman, *supra* note 19, at 820.

⁷³ Section 101 of the U.S. Copyright Act defines a compilation as "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as whole constitutes an original work of authorship. The term 'compilation' includes collective works." Section 103 provides that the subject matter specified in section 102 includes compilations and derivative works, but goes on to specify that copyright in such a work "extends only to the material contributed by the author of such a work and does not imply an exclusive right in the preexisting material."

Copyright Act, 1968 § 10.1 (Austl.) provides that a: "Literary work' includes (a) a table, or compilation, expressed in words, figures or symbols (whether or not in a visible form)." Compilation is not defined. Given the classification of a compilation as a literary work, it would seem that a compilation of artistic works does not fall within the protection of the Act. See A. Monotti, *The Extent of Copyright Protection for Compilations of Artistic Works*, 15 EUR. INTELL. PROP. REV. 156 (1993).

⁷⁴ For a comprehensive discussion of such works, see Ginsburg, *Creation and Commercial Value*, *supra* note 4. Much "creative" effort protected by copyright is characterized by a certain degree of personal expression that is absent in factual works such as compilations. Reichman, *supra* note 19, at 799. This problem of low authorial presence is exacerbated in the

protectable under copyright regimes⁷⁵ since the earliest copyright acts.⁷⁶ Despite this history, works of low authorial presence are considered by many courts to be problematic for modern copyright. Works of high authorial presence, such as novels, are more readily associated with copyright protection.⁷⁷ In the words of one judge, copyright and factual compilations, in particular, are “uneasy bedfellows.”⁷⁸

Some commentators⁷⁹ have suggested that this difficulty stems from a failure to recognize the dual nature of copyright protection (that is, that copyright protects both creativity and commercial value). Nevertheless, compilations, such as databases, create at least two problems for the application of copyright principles. The first problem relates to the grant of copyright itself. Although compilations of information have been, since the inception of copyright, protectable, the facts within them have not.⁸⁰ Facts and ideas have always been considered common property.⁸¹ Some courts have seen this distinction as a

case of computerized databases by the fact that many electronic databases are either completely computer-generated, or involve minimum human input. Yastreboff, *supra* note 10.

⁷⁵ This history has been discussed by a number of commentators. See, e.g., Ginsburg, *Creation and Commercial Value*, *supra* note 4; Robert A. Gorman, *Copyright Protection for the Collection and Representation of Facts*, 76 HARV. L. REV. 1569 (1963); Robert C. Denicola, *Copyright in Collections of Facts: A Theory for the Protection of Non-fiction Literary Works*, 81 COLUM. L. REV. 516 (1981). Compilations are guaranteed copyright protection by the Berne Convention for the Protection of Literary and Artistic Works, art. 2, para. 5 (1987), and the Agreement on Trade-Related Aspects of Intellectual Property Rights, art. 10, para. 2 (1994) (hereinafter TRIPs). The latter expressly provides in art. 10, para. 2, that protection should not extend to the data itself.

⁷⁶ For instance, the Statute of Anne protected printed books of all types and the first U.S. Copyright Act, ch. 15, 1 Stat. 124 (1790), protected “maps, charts and books,” informational works of low authorial presence.

⁷⁷ Ginsburg, *Creation and Commercial Value*, *supra* note 4, at 1882. This association can be attributed to the rise of the Romantic notion of authorship as an expression of individuality.

⁷⁸ *Eckes v. Card Prices Update*, 736 F.2d 859, 862 (2d Cir. 1984).

⁷⁹ See, e.g., Ginsburg, *Creation and Commercial Value*, *supra* note 4, at 1870; Denicola, *supra* note 75, at 516.

⁸⁰ See, e.g., *Callaghan v. Myers*, 128 U.S. 617 (1888) (holding that a volume of law reports was capable of copyright protection, though the author had no exclusive right in the judicial opinions published).

⁸¹ In *Feist Publications, Inc. v. Rural Telephone Service*, it was argued that no one might claim originality in facts, because facts do not owe their origin to an original act of authorship. 499 U.S. 340, 357 (1991). The first person to find and report a particular fact has not created it, but merely discovered its existence. A similar view of “fact discovery” was taken in *BellSouth Advertising & Publishing Corp. v. Donnelley Information Publishing*, 999 F.2d 1436, 1442 (11th Cir. 1993). However, this notion of “fact discovery” has attracted some criticism from commentators. See, e.g., Litman, *supra* note 46, at 996–97; Denicola, *supra* note 75, at 525; Jane C. Ginsburg, *Sabotaging and Reconstructing History: A Comment on the Scope of*

paradox.⁸² Courts have resolved this paradox in two ways. The first way is to uphold copyright protection for “sweat of the brow,” that is, the labor and investment embodied in the compilation.⁸³ The second way is to grant copyright protection only for the creative aspects brought by the author to the work. In the case of directories and other compilations, these creative aspects are the selection, coordination, and arrangement of the contents of the compilation.⁸⁴

1. *Copyright Protection for “Sweat of the Brow”*

“Sweat of the brow theory” is the basis for copyright protection of compilations in the United Kingdom and Australia. Protection is extended to original compilations. The standard of originality required is very low. Works “originate” with the author and take some effort, judgment, or skill on his or her part.⁸⁵ The amount of effort, skill, or judgment required is a question of fact and degree to be decided in the circumstances of each case.⁸⁶ Merely making a list, or putting lists together without some discrimination will not be sufficiently

Copyright Protection in Works of History after Hoehling v. Universal City Studios, 29 J. COPYRIGHT SOC. 647, 658 (1982).

⁸² *Feist*, 499 U.S. at 344; *Financial Info., Inc. v. Moody’s Investors Serv., Inc.*, 751 F.2d 501, 505 (2d Cir. 1984). Although note the statements by Lindley, L.J., in *Lamb v. Evans* (1893) 1 Ch. 218, 223. His Honor did not seem to find this distinction problematic.

⁸³ *Waterlow Publishers Ltd. v. Rose* (1990) 17 LP.R. 493; *Scott v. Stanford* L.R. 3 Eq. 718. United States cases upholding “sweat of the brow” include: *Ill. Bell Tel. Co. v. Haines & Co.*, 683 F. Supp. 1204 (N.D. Ill. 1988), *aff’d*, 905 F.2d 1081 (7th Cir. 1990); *Jeweler’s Circular Pub. Co. v. Keystone Pub. Co.*, 281 F. 83 (2d Cir. 1922).

⁸⁴ *Feist*, 499 U.S. at 340; *Moody’s*, 808 F.2d at 204; *Eckes v. Card Prices Update*, 736 F.2d 859 (2d Cir. 1984); *Worth v. Selchow & Righter Co.*, 827 F.2d 569 (9th Cir. 1987).

⁸⁵ *Kalamazoo (Aus) Pty. Ltd. v. Compact Bus. Sys. Pty. Ltd.*, (1985) 5 LP.R. 213. Some relatively recent United Kingdom decisions have suggested that it may not even be necessary to show that skill has gone into a compilation. *See Express Newspapers v. Liverpool Daily Post & Echo* (1985) F.S.R. 309 (where, in obiter, Justice Whitford said that there was a need for “skill and labour, or possibly . . . only labour” in the production of factual works); *see also Football League v. Littlewoods Pools* (1992) F.S.R. 409, 415 (where the court considered that the earlier case of *Blacklock v. Pearson* (1915) 2 Ch. 376, required only “painstaking hard work” to establish copyright).

⁸⁶ *MacMillan v. Cooper* (1923) 40 T.L.R. 186; *Ladbroke (Football) Ltd. v. William Hill (Football) Ltd.* (1964) 1 W.L.R. 273.

original.⁸⁷ Material drawn from the common stock of knowledge may be copyrighted, provided there is the necessary input of discrimination and effort.⁸⁸

A substantial similarity between the copyright work and a subsequent work will constitute infringement,⁸⁹ unless the second work was independently created,⁹⁰ or a defense of fair dealing excuses that use.⁹¹ A second comer who wishes to use a substantial part of a copyright compilation, and who is denied a license by the copyright owner, must regenerate the information for himself or herself.⁹² Most litigated cases have involved a factual scenario where the second comer appropriated the original compilation for a competitive use.⁹³ However, such use is not necessary to succeed in an action for infringement.⁹⁴

The "sweat of the brow" theory was applied in the database context in the United Kingdom decisions of *Waterlow Directories Ltd. v. Reed Information Services Ltd.*⁹⁵ and *Waterlow v. Rose.*⁹⁶

In *Waterlow v. Reed*, the plaintiff sought an interlocutory injunction to restrain the defendant from infringing copyright in the "Solicitors' and Barristers' Directory." The defendant published "Butterworth's Law Directory" and used lists from the plaintiff's directory to contact lawyers and obtain information from them to be included in its directory. Justice Aldous held that there had been a copyright infringement because the defendant's work reproduced a substantial part of the plaintiff's work.

On similar facts in *Waterlow v. Rose*, copyright infringement was again made out. The plaintiff was entitled to copyright protection because of the effort

⁸⁷ *Cramp v. Smythson* (1944) A.C. 329. In *Cramp*, where tables of information in a pocket diary were held not to attract copyright, as there was no element of originality or skill in the order in which the tables were arranged. They were merely "scraps of information." *Id.* at 340.

⁸⁸ *Kalamazoo (Aus) Pty. Ltd. v. Compact Bus. Sys. Pty. Ltd.* (1985) 5 I.P.R. 213.

⁸⁹ *Waterlow Publishers Ltd. v. Rose* (1990) 17 I.P.R. 493.

⁹⁰ *Corelli v. Gray* (1913) 29 T.L.R. 570.

⁹¹ See *supra* note 49.

⁹² In *Waterlow Publishers Ltd. v. Rose*, (1990) 17 I.P.R. 493, 505, Slade L.J. accepted that *Kelly v. Morris*, (1866) L.R. 1 Eq. 697, and *Morris v. Ashbee*, (1868) L.R. 7 Eq. 34, established the principle that verification of the information by a subsequent author will not necessarily preclude a finding of infringement.

⁹³ See, e.g., *Waterlow Publishers Ltd. v. Rose* (1990) 17 I.P.R. 493; *Mander v. O'Brien* (1934) S.A.S.R. 87; *Longman v. Winchester* X Ves. Jun. 272; *Lamb v. Evans* (1893) 1 Ch. 218; *Matthewson v. Stockdale* (1806) 12 Ves. Jun. 270.

⁹⁴ *British Broad. Co. v. Wireless League Gazette Publ'g Co.*, (1926) 1 Ch. 433; *Weatherby v. Int'l Horse Agency*, (1910) 2 Ch. 297.

⁹⁵ (1990) 20 I.P.R. 69.

⁹⁶ (1990) 17 I.P.R. 493.

expended in gathering and organizing the material. The court found that databases, such as the directory in question, were intended to be used, as well as read. Therefore, the court's focus was upon the issue of an implied license:⁹⁷ what sort of uses were licensed upon publication of the original work? Although publication entitled others to use the work, it did not give a license to use the compilation so as to create a competing work.⁹⁸

B. *Copyright Protection for Selection, Coordination, and Arrangement*

In the United States prior to the decision in *Feist*, there were two lines of authority governing the application of copyright to compilations. One line of authority upheld protection on the basis of "sweat of the brow." The other line of authority held that copyright in factual compilations would be awarded only to the creative aspects of compilations:⁹⁹ that is, the creativity in selection,¹⁰⁰ arrangement,¹⁰¹ and coordination of the factual contents. The decision in *Feist* rejected the "sweat of the brow" theory.¹⁰²

⁹⁷ A similar line of reasoning in the context of a perpetual common law copyright was rejected in *Wheaton v. Peters*, 33 U.S. 591, 657 (1834):

A book is valuable on account of the matter it contains, the ideas it communicates, the instruction or entertainment it affords. Does the author hold a perpetual property in these? Is there an implied contract by every purchaser of his book, that he may realise whatever instruction or entertainment which the reading of it shall give, but shall not write out or print its contents.

⁹⁸ *Waterlow v. Rose* was referred to in the Canadian case of *Tele-Direct (Publications), Inc. v. American Business Information, Inc.*, where Tele-Direct published a yellow pages directory. (1996) 35 I.P.R. 121. American Business Systems Inc. produced various business information publications including business directories and CD-ROMs. These products gave information about businesses, including telephone numbers. Justice McGillis said that *Waterlow* stood for the proposition that "an important consideration in determining the question of substantial similarity in relation to directories is whether the two works are in competition with one another." Given that this was not the case on the facts before him, and given that the plaintiff had merely acquired data not protected by copyright and sorted it according to criteria which were common in the industry, His Honor refused to find copyright infringement.

⁹⁹ *Worth v. Selchow & Righter Co.*, 827 F.2d 569 (9th Cir. 1987); *S. Bell Tel. & Tel. Co. v. Associated Tel. Directory Publishers*, 756 F.2d 801 (11th Cir. 1985); *Eckes v. Card Prices Update*, 736 F.2d 859 (2d Cir. 1984); *Miller v. Universal City Studios, Inc.*, 650 F.2d 1365 (5th Cir. 1981).

¹⁰⁰ "Selection implies the exercise of judgment in choosing which facts from a given body of data to include in a compilation." *Key Publ'ns, Inc. v. Chinatown Today Pub. Enters., Inc.*, 945 F.2d 509, 513 (2d Cir. 1991).

¹⁰¹ Arrangement "refers to the ordering or grouping of data in to lists or categories that go beyond the mere mechanical grouping of data as such, for example, the alphabetical,

Like *Waterlow, Feist* involved a directory of information. In this case, the subject matter in dispute was a typical white and yellow telephone directory, published by Rural. Rural was a public utility that provided telephone service to several communities in Kansas. Under state law, it was required to annually issue an updated telephone directory. Rural obtained the data for its directory from its subscribers, who provided the relevant information when applying for telephone service from the company. The white pages of the directory listed in alphabetical order the names, towns, and telephone numbers of the subscribers.

Feist was a publishing company that specialized in area-wide telephone directories covering a wider geographical area than did Rural's directory. Feist offered to pay Rural for the right to use its white pages listings. Rural declined to license its listings to Feist. Feist then used Rural's white pages listings without Rural's consent. Feist sought to obtain additional information, such as street addresses, for the listings that it took from Rural's white pages. However, many of the listings in Feist's directory were identical to listings in Rural's directory.

Rural brought an action for copyright infringement. The Court held that the listings in Rural's directory were uncopyrightable facts. Copyright could extend only to the selection, coordination, or arrangement of the listings. However, these were not sufficiently original to gain copyright protection. Rural's selection of listings was "obvious" and its arrangement "inevitable."¹⁰³

Since *Feist*, there have been judicial attempts to restore copyright protection for some factual compilations.¹⁰⁴ Courts have been particularly ready to find creativity in selection. Compilations will be copyrighted where a compiler makes subjective, evaluative selections that are based on her personal knowledge and experience, and are not inevitable or purely utilitarian.¹⁰⁵ Courts in a number of cases have made a distinction between ideas to which the merger doctrine¹⁰⁶

chronological, or sequential listings of data." *Key Publications*, 945 F.2d at 513 (quoting COPYRIGHT OFFICE GUIDELINES FOR REGISTRATION OF FACT-BASED COMPILATIONS (1989)).

¹⁰² See, e.g., *Ill. Bell Tel. Co. v. Haines & Co.*, 905 F.2d 1081 (7th Cir. 1990); *Hutchinson Tel. Co. v. Frontier Directory Co. of Minn.*, 770 F.2d 128 (8th Cir. 1985).

¹⁰³ *Feist Publ'ns, Inc. v. Rural Tel. Serv.*, 499 U.S. 340, 362-63 (1991).

¹⁰⁴ See *Kregos v. Associated Press*, 937 F.2d 700 (2d Cir. 1991); *CCC Infor. Serv., Inc. v. Maclean Hunter Mkt. Reports*, 44 F.3d 61 (2d Cir. 1994).

¹⁰⁵ See, e.g., *Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters.*, 945 F.2d 509 (2d Cir. 1991); *Nester's Map & Guide Corp. v. Hagstrom Map Co.*, 796 F. Supp. 729 (E.D. N.Y. 1992); *CCC Info. Serv., Inc. v. Maclean Hunter Mkt. Reports*, 44 F.3d 61 (2d Cir. 1994); *Lipton v. Nature Co.*, 71 F.3d 464 (2d Cir. 1995); *Budish v. Gordon*, 784 F. Supp. 1320 (N.D. Ohio 1992).

¹⁰⁶ This doctrine provides that, in some fact works, the expression available to a subsequent author to express information already published by an originator will be very limited. The idea and the expression then merge, so that an action for copyright infringement by the originator will not be successful. In *Kregos*, the court said that in one sense, every

should and should not apply. Those ideas that undertake to advance the understanding of phenomena or the solution of problems, will succumb to the merger doctrine. These facts or ideas are characterized as “building blocks of understanding” or “hard ideas.” Those ideas to which the merger doctrine should not apply are those that are “infused with the author’s taste or opinion.” These are “soft” ideas that do not materially assist the understanding of future thinkers. The grant of copyright to “soft” ideas is seen to be less problematic for progress than is a grant of copyright to “hard” ideas.

C. *Criticisms of Copyright Protection*

Neither copyright model is considered by commentators to be satisfactory for the legal protection of databases. “Sweat of the brow” has been criticized for giving too much protection to compilers.¹⁰⁷ The ready grant of copyright may operate so as to give a de facto monopoly in the factual contents of a compilation. Such a de facto monopoly may prevent compilers from building upon preexisting compilations. “Sweat of the brow” does not provide incentive for creative, as opposed to mere laborious, effort. Subsequent compilers are forced to collect raw data anew. The doctrine encourages inefficiency (and could potentially drive up costs to consumers) because compilers may expend considerable effort so as to be assured of protection.¹⁰⁸

“Sweat of the brow” can also be criticized for bestowing too lengthy a term of protection upon databases.¹⁰⁹ On the other hand, the principle in *Feist* has been accused of leaving databases, electronic or non electronic, with minimal protection. As one commentator has put it, *Feist* left databases “naked in the

compilation of facts represents a merger of an idea with its expression. 937 F.2d at 706. Whether the idea will merge with expression depends upon the level of abstraction at which the idea is identified. However, even if an idea is formulated at a relatively high level of abstraction, merger may occur if the circumstances are such that the realistic availability of differing expressions is so drastically limited that the idea can be said to have merged with the expression. As long as selections of facts involve matters of taste and personal opinion, there is no serious risk that withholding the merger doctrine would extend protection to an idea. In this case, Kregos’s pitching form was part way along the continuum spanning matters of pure taste to matters of predictive analysis.

¹⁰⁷ See generally Thorne, *supra* note 10; *Feist Publ’ns, Inc. v. Rural Tel. Serv.*, 499 U.S. 340, 354 (1991).

¹⁰⁸ Polivy, *supra* note 51, at 20.

¹⁰⁹ Yastreboff, *supra* note 10 “[M]uch of the information currently available in online databases is highly volatile. Therefore affording protection for a period of over 50 years . . . will be excessive for most online databases, as the residual value of a database in that time will be zero. This conflicts with the traditional justification of copyright.” *Id.*

market place," vulnerable to parasitic competitors, users, and information Samaritans.¹¹⁰

The requirement in *Feist* of creativity as an aspect of originality has two significant problems, one general and the other specific. Firstly, as Littman argues, true originality in copyright is an illusion.¹¹¹ Authors do not create something from nothing. Every act of authorship is a process of adaptation, transformation, and recombination of existing material.¹¹² If we really believed in originality, we would require authors to prove which elements of a work were really original, or require each author to seek permission from their predecessors.¹¹³

The second problem is that the requirement of creativity is inappropriate in the specific database context. The only scope for creativity, as *Feist* rightly decided, is in selection and arrangement. Few compilations, however, will gain copyright under such a test. Most arrangement systems for databases are mundane. For instance, most directories are based on geographic area and are in alphabetical order. Indeed, as one commentator has pointed out, if they were not mundane, they would not be useful.¹¹⁴

A further problem with the requirement of "creative" arrangement is that many electronic databases will not qualify for protection. This is because they may be arranged or retrieved in variations limited only by the capabilities of the computer and the sophistication of the retrieval program. There is no particular "arrangement" to protect.¹¹⁵ On the other hand, selection is an inadequate basis

¹¹⁰ Hunsucker, *supra* note 15, at 2. Since *Feist*, many compilations have been denied protection. See generally *Victor Lalli Enters., Inc. v. Big Red Apple, Inc.*, 936 F.2d 671 (2d Cir. 1991); *Sem-Torq, Inc. v. K-Mart Corp.*, 936 F.2d 851 (6th Cir. 1991); *BellSouth Adver. & Publ'g Corp. v. Donnelly Info. Publ'g, Inc.*, 999 F.2d 1436 (11th Cir. 1993); *Mid-America Title Co. v. Kirk*, 59 F.3d 719 (7th Cir.); *Skinder-Strauss Assoc. v. Mass. Continuing Legal Educ., Inc.*, 914 F. Supp. 665 (D. Mass. 1995); *Am. Dental Ass'n v. Delta Plans Ass'n*, 39 U.S.P.Q. 2d 1714 (N.D. Ill. 1996); *Warren Publ'g, Inc. v. Microdos Data Corp.*, 115 F.3d 1509 (11th Cir.).

¹¹¹ See Litman, *supra* note 46.

¹¹² See also Yen, *supra* note 45, at 554.

¹¹³ Litman, *supra* note 46, at 1022.

¹¹⁴ Michael Schwartz, *Copyright in Compilations of Facts: Feist Publications, Inc., v. Rural Telephone Service Co., Inc.*, 5 EUR. INTELL. PROP. REV. 178, 180 (1991); See, e.g., *BellSouth Adver. & Pub. Corp. v. Donnelly Info. Pub., Inc.*, 999 F.2d 1436 (11th Cir. 1993) (where the work in question was arranged in a way "typical" of business directories).

¹¹⁵ Denicola, *supra* note 75, at 531. Denicola goes on to note that even where arrangement is sufficiently original, this aspect of the database is one that is rarely appropriated by second comers. *Id.* at 527-28. It is also the case that many electronic databases are computer-generated or involve minimum human input. See generally Yastreboff, *supra* note 10.

for protection of compilations because it cannot be applied to exhaustive compilations.¹¹⁶

Thus, not only is the grant of copyright difficult to establish, but infringement may be difficult to make out, short of wholesale appropriation. In informational works, subsequent authors who wish to create a new work can often choose only from a limited range of expression.¹¹⁷ Aware of this, courts have either refused to find copyright infringement,¹¹⁸ or have held verbatim reproduction, or very close paraphrasing is necessary to find infringement.¹¹⁹ Thus, even where copyright is granted to a compilation, its protection tends to be "thin."¹²⁰

As noted above, some decisions since *Feist* have attempted to avoid this problem by distinguishing between "hard facts" and "soft facts." These decisions, however, have been criticized for their somewhat precarious logic.¹²¹ Perhaps the most telling criticism of *Feist* is that some courts¹²² have reintroduced "sweat of the brow" principles. One commentator observes that this "suggests a strong judicial inclination to reward effort and give primacy to copyright's incentive role."¹²³

In practical terms, some database owners have added artificial "creative" elements to the structure or content of their databases to satisfy the *Feist* test.¹²⁴

¹¹⁶ Hicks, *supra* note 11, at 1001. For examples of such comprehensive databases, see Warren Publ'g, Inc. v. Microdos Data Corp., 115 F.3d 1509 (11th Cir. 1997); Am. Dental Ass'n v. Delta Dental Plans Ass'n, 39 U.S.P.Q. 2d 1714 (N.D. Ill. 1996).

¹¹⁷ See statements made by Lindley, L.J., in *Lamb v. Evans*, (1893) 1 Ch. 218, 224 ("There is so much common to [the plaintiff's] book and to other books of the same sort that they very likely will contain the same information.").

¹¹⁸ On the basis that idea and expression have merged and copyright does not protect ideas.

¹¹⁹ *BellSouth Adver. & Publ'g Corp.*, 999 F.2d at 1447; *Harper House, Inc. v. Thomas Nelson, Inc.*, 889 F.2d 197, 205 (9th Cir. 1989).

¹²⁰ *Eckes v. Card Prices Update*, 736 F.2d 859, 862 (2d Cir. 1984) ("The sweat of the researcher's brow does not merit copyright protection absent, perhaps, wholesale appropriation."); see also *Feist Publ'ns, Inc. v. Rural Tel. Serv.*, 499 U.S. 340, 349 (1991).

¹²¹ Ginsburg has asked: "Why should only subjective selections be protected while useful but objective material not be protected? Even the distinction is debatable: there is much subjectivity in even apparently objective presentations of facts; and subjective information is easily objectified." Ginsberg, *Protection of Databases*, *supra* note 4, at 153. "Can infusions of opinion make thin copyright fat again?" *Id.* at 156.

¹²² *U.S. Payphone, Inc. v. Executives Unlimited of Durham, Inc.*, 18 U.S.P.Q. 2d 2049 (4th Cir. 1991); *Publ'ns Int'l, Ltd. v. Meredith Corp.*, 88 F.3d 473 (7th Cir. 1996).

¹²³ Polivy, *supra* note 51, at 45.

¹²⁴ Jane C. Ginsburg, *No "Sweat"? Copyright and Other Protection of Works of Information*, 92 COLUM. L. REV. 338, 347-49 (1992). Such added "creativity" may be by

Database owners have also increased their reliance upon extra-copyright means of protection.¹²⁵ This latter development has the potential to enable database owners to override copyright principles altogether.

1. *Extra-Copyright Protection: Legitimate Self-Help or Monopolization?*

Copyright protection of databases may be supplemented or even replaced by “self-help” forms of protection, such as contract¹²⁶ and encryption.¹²⁷ Commentators are divided as to the implications of such “extra-copyright” protection.¹²⁸

Some commentators have considered such self-help measures to be inadequate for the purposes of database protection. They raise a number of concerns with regard to contractual protection: the level of control a database maker can assert over the database contents may vary considerably,¹²⁹ because the information does not reside physically with a database owner when it is copied, the database owner does not know whether a contractual licensing agreement is honored;¹³⁰ contracts will only aid database owners where the parties voluntarily abide by the contract terms, or if these terms are enforced by the courts;¹³¹ and contractual protection is available only as against the other

means of adding opinions, abstracts or other non fact specific information. Sanks, *supra* note 5, at 1009. Apart from the fact that such embellishments may frustrate users and increase costs, this creativity may be too trivial to give rise to copyright protection. See *Matthew Bender & Co. v. West Publ'g Co.*, 158 F.3d 674 (2d Cir. 1998).

¹²⁵ Sanks, *supra* note 5, at 1008.

¹²⁶ Such as “shrinkwrap” and “click-on” licenses; or providing access on a price tier method by providing a password with which to access the data. *Id.* at 1009.

¹²⁷ U.S. COPYRIGHT OFFICE, *supra* note 31, at 19.

¹²⁸ DIGITAL DILEMMA, *supra* note 18, at xxiii (describing licensing and encryption in the digital environment as potentially a “two-edged sword,” creating unprecedented opportunities for individuals to access information in new and better ways, but also potentially having a significant impact on public access).

¹²⁹ The amount of protection a database maker will have depends upon whether the data is freely available in the public domain and whether she or he chooses to make the database publicly available or retain private control over it. Hunsucker, *supra* note 15, at 717.

¹³⁰ See Sanks, *supra* note 5, at 1008.

¹³¹ See Hunsucker, *supra* note 15, at 719; see also *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1453–55 (7th Cir. 1996). In this case, ProCD developed a database of telephone listings, which it sold on CD-ROM. Zeidenberg bought the CD and incorporated it into his own database, and then made this database available for free over the internet. Zeidenberg argued that copyright law preempted the ‘shrinkwrap’ licensing agreement on the product. However, the court found the license to be valid and enforceable. *But cf. Vault Corp. v. Quaid Software, Ltd.*, 847 F.2d 255, 269 (5th Cir. 1988) (holding that a shrinkwrap license for computer

contracting party. In order to fill in the gaps in protection, a database owner must couple contractual protection with technological means of protection in order to reduce the vulnerability of databases.¹³² However, commentators point out that technological methods such as encryption also have limitations: technological protection is not sufficiently advanced to be relied upon,¹³³ these methods cannot protect a database once it is printed; and the necessity for technological solutions could increase database costs.¹³⁴

Others, however, consider that these extra copyright forms of protection give database owners too much power. They argue that these forms of protection could potentially disrupt the public-access/private-incentive equilibrium so important to copyright regimes. Such commentators have pointed to the already monopolistic nature of the database industry,¹³⁵ and argue that this may be reinforced by the use of contracts.¹³⁶ In the case of databases where public access is restricted,¹³⁷ the growing capacity to track and charge for each use of on-line data has particular implications. Publishers can effectively be their own collection societies, and operate free of any external regulation.¹³⁸ They may charge others for uses that would be permitted under copyright, such as browsing or using the information for research. Those charges may be sustainable if there is sufficient competition,¹³⁹ but given the monopolistic nature of the database industry, this seems unlikely. This could have repercussions for science and research. As data

diskettes containing a software program that prohibited unauthorized duplication of the programs was an unenforceable contract of adhesion).

¹³² Hunsucker, *supra* note 15, at 708–10.

¹³³ DIGITAL DILEMMA, *supra* note 18, at xxvi (observing that technical protection tools are not widely used for IP protection in 1999, although a few tools have been deployed to protect intellectual property in certain niches with some success. Such tools are “useful but not a panacea”).

¹³⁴ Sanks, *supra* note 5, at 1009.

¹³⁵ Reichman & Samuelson, *supra* note 3, at 70 (observing that the private database industry is largely characterized by niche marketers who dominate specific market segments). This monopolistic nature of the database industry may be attributed to a number of factors: startup costs are relatively high, the prospects for market-sharing are not often realized, much data is unavailable from public sources and the creation of a single complex database apparently constitutes a *de facto* barrier to entry by competitors that is seldom overcome. *Id.* at 94. *But cf.* Hunsucker, *supra* note 15, at 778 (arguing that this may only be true of markets dominated by database makers who are also the sole source for the data sought).

¹³⁶ Reichman & Samuelson, *supra* note 3, at 70.

¹³⁷ *See* Hunsucker, *supra* note 15, at 713.

¹³⁸ Reichman & Uhler, *supra* note 3, at 806.

¹³⁹ Hunsucker, *supra* note 15, at 718 (arguing that the potential for monopolistic control is lessened by market competition, and if database makers make their product available only through telecommunications devices their market share will necessarily be reduced to those who have access to such devices).

may no longer enter the public domain, researchers could be forced to obtain new grants or substitute funding to repeat the collection process. Thus, scarce funds would be used to duplicate the creation of knowledge already in existence.¹⁴⁰ In short, Reichman argues that noncopyrightable information could become the object of contractual overprotection. This overprotection is, in the long run, potentially more insidious than the chronic underprotection that results from the decision in *Feist*.¹⁴¹

2. *Unfair Competition Laws: Uncertain Protection*

Databases may also receive protection under unfair competition laws. A doctrine of unfair competition or misappropriation has been defined as “a right against imitation, not requiring misrepresentation, of valuable intangibles,” “valuable intangibles” being further defined as “an aspect of a plaintiff’s person, product or business.”¹⁴²

The development of such a regime, particularly for “legal hybrids,” such as designs and electronic informational goods, has been advocated by a number of commentators.¹⁴³ The advantage of an unfair competition regime is that it focuses

¹⁴⁰ Reichman & Uhler, *supra* note 3, at 808–09.

¹⁴¹ Reichman, *supra* note 19, 827–28.

¹⁴² Michael Spence, *Passing Off and the Misappropriation of Valuable Intangibles*, 112 L.Q.R. 472, 476 (1996). The doctrine was applied in *International News Service v. Associated Press*, 248 U.S. 215 (1918), where the parties were competitors in the gathering and distribution of news and its publication for profit in newspapers throughout the United States. The plaintiffs were members of the Associated Press, a cooperative organization that gathered news for the benefit of its membership. International News Service pirated the organization’s news by, inter alia, copying news from bulletin boards and early editions of members’ newspapers and selling this to the defendant’s customers. The Court found that this practice amounted to unfair competition. News, as between rival news gathering and publishing agencies, was regarded as quasi-property:

The defendant in appropriating it and selling it as its own, is endeavouring to reap where it has not sown, and by disposing of it to newspapers that are competitors of complainant’s members, is appropriating to itself the harvest of those who have not sown. Stripped of all disguises, the process amounts to an unauthorised interference with the normal operation of complainant’s legitimate business precisely at the point where the profit is to be reaped in order to divert a material portion of the profit from those who have earned it to those who have not, with special advantage to defendant in the competition because of the fact that it is not burdened with any part of the expense of gathering news. The transaction speaks for itself, and a court of equity ought not to hesitate long in characterising it as unfair competition in business.

Id. at 221.

¹⁴³ See, e.g., Dennis S. Karjala, *Misappropriation as a Third Intellectual Property Paradigm*, 94 COLUM. L. REV. 2594 (1994). See generally ANSELM KAMPERMAN SANDERS, UNFAIR COMPETITION LAW: THE PROTECTION OF INTELLECTUAL AND INDUSTRIAL CREATIVITY

upon the methods of copying, rather than the nature of the work copied. Some commentators have suggested that unfair competition is the appropriate basis for database protection.¹⁴⁴ Others have argued that the potential for database protection under “hot news” misappropriation¹⁴⁵ and contract means that *sui generis* database protection is unnecessary.¹⁴⁶

However, such a regime faces some practical difficulties for database protection. In some jurisdictions, such as Australia, a common law doctrine of unfair competition has not been judicially accepted.¹⁴⁷ This is despite expressions of the need for such a doctrine.¹⁴⁸ In other jurisdictions,¹⁴⁹ such as the United Kingdom, there have been some judicial attempts to extend passing off to provide a remedy for unfair competition.¹⁵⁰ To date, however, misrepresentation, rather than misappropriation, remains the core of such an action.¹⁵¹

(1997); Gordon, *supra* note 42; S. Ricketson, *Reaping without Sowing; Unfair Competition and Intellectual Property Rights in Anglo-Australian Law*, 7 UNSW L.J. 1 (1984); J. Lahore, *Designs and Petty Patents: A Broader Reform Issue*, 7 AUSTL. INTELL. PROP. J. 7 (1996).

¹⁴⁴ Reichman & Samuelson, *supra* note 3.

¹⁴⁵ See *Nat'l Basketball Ass'n v. Motorola, Inc.*, 105 F.3d 841, 845 (2d Cir. 1997) (where NBA sued Motorola for providing real-time information about NBA games to consumers through a hand-held pager). The NBA claimed under various heads of action, including unfair competition by misappropriation. However, the court found NBA did not have a cause of action because it did not show a sufficient competitive effect on the market for its products. Protection would not be preempted where (i) a plaintiff generates or gathers information at a cost; (ii) the information is time sensitive; (iii) a defendant's use of the information constitutes free riding on the plaintiff's efforts; (iv) the defendant is in direct competition with a product or service offered by the plaintiffs; and (v) the ability of other parties to free ride on the efforts of the plaintiff or others would so reduce the incentive to produce the product or service that its existence or quality would be substantially threatened. See also Shane M. McGee, *Cooling off the Hot-news Exception: National Basketball Ass'n v. Motorola, Inc.*, 66 U. CIN. L. REV. 1019 (1998).

¹⁴⁶ Ginsburg, *Protection of Databases*, *supra* note 4, at 174.

¹⁴⁷ *Victoria Park Racing & Recreation Grounds v. Taylor*, 58 C.L.R. 479 (1937); see also *Moorgate Tobacco Co. Ltd. v. Philip Morris Ltd. (No. 2)*, 156 C.L.R. 414 (1984).

¹⁴⁸ See, e.g., *Hexagon Pty. Ltd. v. Austl. Broad. Comm'n*, 7 A.L.R. 233 (1975); *Willard King Org. Pty. Ltd. v. United Telecasters Sydney Ltd.*, 2 N.S.W.L.R. 547 (1981).

¹⁴⁹ The unfair competition law of member states of the European Union is seen as too varied and fragmentary for the European Commission to have relied solely on harmonizing such principles for the purposes of database protection. Penelope Pearce, *Directories to Databases: Bringing the Law into the Information Age*, 2 L. TECH. J. (June 1993), www.law.warwick.ac.uk/ljtj/2-2b.html.

¹⁵⁰ See, e.g., *J. Bollinger v. Costa Brava Wine Co. Ltd.* (1960) Ch. 262; *John Walker & Sons Ltd. v. Henry Ost & Co. Ltd.* (1970) 1 W.L.R. 917; *Warnink Bestolen Venootschap v. J. Townsend & Sons (Hull) Ltd.* (1979) A.C. 731.

¹⁵¹ For an argument justifying the retention of the doctrine of passing off in its current form, see Spence, *supra* note 140, at 472.

In the United States, unfair competition protection is notoriously unreliable.¹⁵² Although the court in *Feist* suggested unfair competition law may be applicable, the doctrine may be preempted by the federal Copyright Act under the doctrine of federal supremacy.¹⁵³ Further, unfair competition does not protect database makers from information Samaritans.¹⁵⁴

Given the shortcomings of common law unfair competition, it may be desirable to develop a statutory unfair competition regime for database protection. Indeed, one of the more recent US *sui generis* database proposals¹⁵⁵ uses unfair competition as the basis of protection. This brings me to the issues surrounding *sui generis* protection.

3. *Sui Generis Protection: Monopoly in Information?*

In 1992, the European Commission proposed to harmonize national laws within the European Union regarding the protection of databases.¹⁵⁶ This proposal was adopted in a modified form as a directive¹⁵⁷ to member states in 1996,¹⁵⁸ and took effect on January 1, 1998.¹⁵⁹ The EU Directive was the result of a number of factors, including the desire to increase investment in databases within the European Union states.¹⁶⁰ The original proposal was relatively innocuous and based upon unfair competition principles.¹⁶¹ However, the final

¹⁵² Hunsucker, *supra* note 15, at 16.

¹⁵³ See Schwartz, *supra* note 112, at 178.

¹⁵⁴ See Hunsucker, *supra* note 15, at 16.

¹⁵⁵ See H.R. 1858, 106th Cong. (1999).

¹⁵⁶ While harmonization of EU law is given as an important motive for the database directive, this claim has met with some skepticism. See, e.g., Reichman & Samuelson, *supra* note 3, at 99.

¹⁵⁷ The EU establishes a single, integrated market, encouraging the free movement of goods through common economic and legal policies. A directive is a secondary community law that binds member states but requires implementation by the enactment of domestic laws in each member state within a specified time. Sanks, *supra* note 5, at 996

¹⁵⁸ Council Directive No 96/9, L.J.L 77/20 (1996).

¹⁵⁹ Comparable database protection laws, as required by the EU Directive, have been enacted by Austria, Belgium, Denmark, Finland, France, Germany, Great Britain, Spain, and Sweden. Julius J. Marke, *Database Protection Bills Pending in Congress*, N.Y. L.J., Aug. 17, 1999, at 5.

¹⁶⁰ See Recital 11, Council Directive NO 96/9, L.J.L 77/20 (1996) (noting the imbalance in the level of investment in the database sector).

¹⁶¹ Originally, the Directive was based upon the Nordic Catalogue Rule, which gives short term copyright protection for compilations that fail to satisfy the requirements of copyright law. It prevents slavish reproduction of all or part of the original work for a period of ten years from the date of first publication. See Reichman, *supra* note 19, at 828.

proposal, which confers copyright-like protection,¹⁶² has proved to be more controversial.¹⁶³

Subsequent to the EU Directive, there were two other important *sui generis* proposals. In 1996, the World Intellectual Property Organization (WIPO)¹⁶⁴ proposed a treaty on the subject of legal protection of databases.¹⁶⁵ In the United States, H.R. 3531 attempted to provide strong database protection.¹⁶⁶ However, H.R. 3531 and successive attempts to introduce database legislation have been, to date, unsuccessful.¹⁶⁷

The EU Directive has proved to be an extreme form of *sui generis* protection. Database is defined in article 1(2) as “a collection of independent works, data or other materials arranged in a systematic or methodical way capable of being individually accessed by any means.” The Directive seeks to protect the “substantial investment” embodied in a database.¹⁶⁸

Despite the fact that “substantial investment” is open to interpretation, the grant of protection is similar to copyright protection under the “sweat of the brow” model. However, the EU Directive proposes much stronger protection than was granted under copyright.

¹⁶² Sanks, *supra* note 5, at 993.

¹⁶³ The EU Directive actually establishes a dual system of protection, composed of copyright for the structure of databases, well as the *sui generis* protection.

¹⁶⁴ The World Intellectual Property Organization (WIPO) is a specialized United Nations coordinating body for international patents, trademarks, and copyrights.

¹⁶⁵ In December 1996, representatives from over 180 countries met to negotiate three new international copyright protection treaties that addressed advances in technology. One of the proposals originally scheduled for negotiation was the Basic Proposal for the Substantive Provisions of the Treaty on Intellectual Property in Respect of Databases, WIPO CRNR/DC/6, August 30, 1996. Negotiations on this proposal were delayed until later in 1997. At its Governing Bodies meeting on March 20 and 21, 1997, WIPO convened a “committee of experts” which met September 10–12, 1997 to consider a draft of a “Treaty on Intellectual Property in Respect of Databases.” The treaty has proved controversial. More recently, WIPO published a nine-point “Digital Agenda” highlighting the steps it plans to take to ensure that all countries are involved in the process of defining policy and addressing the issues surrounding intellectual property law in the digital age. One of these steps is working on a database protection treaty.

¹⁶⁶ The Database Investment and Intellectual Property Antipiracy Act, H.R. 3531, 104th Cong. (1996) (introduced by Rep. Carlos Moorhead).

¹⁶⁷ In 1997, Congressman Howard Coble introduced H.R. 2652, Collections of Information Antipiracy Act; and in the last Congress, two competing bills, H.R. 354, and H.R. 1858 were proposed.

¹⁶⁸ EU Directive article 7(1) confers a right upon the maker of a database that can show “there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents.”

Unlike copyright, the grant of protection under the Directive is potentially perpetual. The database holder has fifteen years protection under article 10(1). However, any “substantial change” of either a qualitative or quantitative nature—and small changes may be cumulative for this purpose—that result in the database being considered a substantial new investment, will qualify the database for a further fifteen year protection period under article 10(3).

Unlike copyright, the scope of protection in databases is very wide. Article 7(1) of the Directive grants the database owner the “right to prevent extraction and/or reutilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.” “Extraction” is defined as “the permanent or temporary transfer of all or a substantial part of the contents of a database” to another medium by any means or form. Thus, even temporary transfers to online receivers would be caught by this provision.¹⁶⁹ The EU Directive defines “reutilization” in article 7(2)(b) as “any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by online, or other forms of transmission.” This would cover online use or transmissions of data, including those in value added or derivative formats.¹⁷⁰

Unlike copyright, fair use provisions are circumscribed. Under the EU Directive, the use of an “insubstantial part” of the database is permitted by article 8(1) and any contractual provision to the contrary is rendered “null and void” by article 15. Article 9 of the EU Directive also allows member states to legislate for exceptions for certain uses in three categories: extraction for private purposes of the contents of a non-electronic database; extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent that this extraction is justified to achieve the purpose; and extraction and/or reutilization for the purposes of public security or an administrative or judicial procedure article 9. These exceptions, however, are to be read in conjunction with the provisions relating to the obligations of lawful users of publicly available databases. Under articles 8(2) and 8(3), these obligations prohibit acts that: conflict with “the normal exploitation of the database”; or “unreasonably” prejudice the “legitimate interests of the database maker”;¹⁷¹ or cause “prejudice to the holder of a copyright or related right in respect of the works or subject matter contained in the database.”

¹⁶⁹ Reichman & Samuelson, *supra* note 3, at 87.

¹⁷⁰ *Id.*

¹⁷¹ Recital 50 provides that these articles function as a limitation on the exceptions in article 9.

The EU's protection,¹⁷² under article 11, is afforded only to developers whose countries provide similar reciprocal rights to databases developed by EU citizens and companies. This poses difficulties to the international community, particularly the U.S. If a country outside the EU fails to enact *sui generis* protection, its database producers will be unable to enjoy the protection offered by the EU Directive. European companies that can avail themselves of the Directive will then be in a better competitive position.¹⁷³

C. Criticisms of the Sui Generis Models

The EU Directive and the corresponding WIPO and United States proposals have attracted some criticism. Reichman and Samuelson argue that these forms of *sui generis* database protection are "the most deviant" example of *sui generis* protection demanded by the breakdown of the traditional copyright/patent dichotomized model of intellectual property.¹⁷⁴ In particular, they make the following criticisms: the proposed *sui generis* models would confer a far stronger monopoly than is necessary to avert market failure; they would create an exclusive property rights regime of potentially unlimited duration that would be subject to few, if any, public policy limitations; they would jeopardize basic scientific research, eliminate competition in the markets for value added products and services; and convert existing barriers to entry into insuperable legal barriers to entry;¹⁷⁵ there is little guidance as to what constitutes an "insubstantial" part of a database; the provisions allowing for traditional "fair uses" are far more restricted than under copyright;¹⁷⁶ and these models could potentially lead to relatively high prices for the use of public goods.¹⁷⁷

¹⁷² The EU Directive is not only applicable to member states. It must also be implemented in the additional states of the European Economic Area—Iceland, Liechtenstein, and Norway; and Central and Eastern European States have also agreed to provide for an equivalent level of protection by December 31, 1999. Thomas Hoeren, *EU Leads World Towards Database Protection*, IP WORLDWIDE, Aug. 1997.

¹⁷³ Hoeren, *supra* note 170.

¹⁷⁴ Reichman & Samuelson, *supra* note 3, at 53.

¹⁷⁵ *Id.* at 55.

¹⁷⁶ Reichman & Uhler, *supra* note 3, at 810.

¹⁷⁷ See Hoeren, *supra* note 162 (considering such arguments essentially as "scare tactics"). He argues that such criticisms are merely a matter of US national pride in response to the EU Directive:

The US is notorious for aggressively using the threat of trade sanctions to pressure other countries to increase their IP protections and to open their markets to American IP products. The US should not be surprised that a similar strategy is being used by the EU to induce other countries to provide greater protection for databases.

The more recent United States proposals seem to have taken such criticisms on board. In particular, H.R. 1858 seeks to adopt an unfair competition approach to database protection. However, it has been criticized because it vests legal authority in the Federal Trade Commission to prevent database piracy, rather than the plaintiffs themselves.¹⁷⁸ H.R. 354, a modified version¹⁷⁹ of the earlier United States proposals, H.R. 3531 and H.R. 2652, has also met with opposition. Its critics argue that it will interfere with the free flow of information;¹⁸⁰ facilitate non-competitive pricing for access to facts that rightly belong in the public domain;¹⁸¹ and provide potentially perpetual protection.¹⁸²

In summary, then, the "Goldilocks" answer to database protection, that is, protection that is not too strong and not too weak, but "just right," has proved

Id. But see DIGITAL DILEMMA, *supra* note 18, at xxiv (where the report notes the potential, with the increasing commercialization of federal government information, for limitations upon the amounts of information that can be accessed inexpensively by the public).

¹⁷⁸ Reed-Elsevier, Inc. Senior Vice President and General Counsel Henry Horbaczewski, for the Coalition Against Database Piracy described the bill as "deeply flawed" and argued that it prevents plaintiffs from taking appropriate legal action against suspected pirates. NEWSBYTES, Nov. 17, 1999.

¹⁷⁹ H.R. 354 is nearly identical to H.R. 2652 of the 105th Congress, defeated in the Senate because of its lack of "fair use" exceptions for database users. H.R. 354 adds fair use measures for scientific, education, and research purposes, provided such use does not directly harm the actual market for the database.

¹⁸⁰ "Many universities, library associations and telecoms are fearful that a measure with tougher enforcement such as H.R. 354 would be too restrictive on the free flow of information and place too much information in the hands of a few select companies." *House of Representatives Wrestles with Two Database Protection Measures*, SIMBA REP. DIRECTORY PUBL'G, Sept. 15, 1999. "The library community is concerned that H.R. 354 is overly broad in scope and represents a radical departure from the current intellectual property framework, which protects expression and not investment." The libraries are also concerned about the vagueness of key terms, arguing that the proposal "would permit costly litigation against academics who would be forced to raise the imprecise defense after the suit had begun of what may constitute harm to the actual or potential market. Marke, *supra* note 157.

¹⁸¹ Washington Senior Counsel, Sally Greenberg for the Consumers Union, reported in NEWSBYTES, Nov. 17, 1999; COMM. DAILY, Nov. 18, 1999. "Of equal concern are the provisions of H.R. 354 which allow a producer unprecedented control over uses of a database including downstream, transformative use of facts and government works." *Database Protection Bills Pending in Congress*, N.Y. L.J., Aug. 17, 1999. Firms that have lobbied against H.R. 354 include the United States Chamber of Commerce, the American Library Association, AT&T, Schwab, DLJdirect, Bloomberg, and Sun Microsystems. Mark Hendrickson, *Coble Bill Blocked SIA joins Schwab, DLJdirect in Opposition*, SEC. INDUSTRY NEWS, Nov. 22, 1999. The article also reports on the "Dear Colleague" letter signed jointly by two key members of the Commerce Committee, John Dingell and Michael Oxley, arguing that the Coble Bill would create "a quasi-property right in facts themselves, granting the compiler of information an unprecedented right to control value-added, downstream uses of the resulting collection."

¹⁸² See generally Marke, *supra* note 157.

extremely elusive. Copyright protection for arrangement and selection does not provide adequate protection against free riding. Copyright protection under “sweat of the brow” may provide too much protection. Extra copyright protection, either as a supplement or replacement for copyright, may overprotect or underprotect databases. Overprotection may occur so that the public is denied access for scientific, educational, or reporting purposes, and subsequent compilers cannot recreate databases.¹⁸³ Alternatively, extra-copyright protection may provide too little protection, particularly where the wrongdoer is not in a contractual relationship with the database owner. The application of unfair competition laws tends to be uncertain. Finally, most of the *sui generis* models to date may amount in practical terms to a grant of private ownership in individual facts. If we accept copyright’s premise, a grant of a monopoly right cannot be justified unless the quid pro quo of public access is granted.¹⁸⁴ Most *sui generis* schemes, however, grant potentially perpetual protection and restrict the uses that can be made by both researchers and potential competitors. Such schemes seem difficult to defend in terms of social benefits. Although supporters of such schemes generally argue that the public good is served by the creation of more databases, this argument tends to be flawed. As Kreiss points out, such systems may create more works, but unless public access is assured, there will be less social benefit in terms of knowledge and progress.¹⁸⁵

I turn now to a consideration of premodern copyright cases. My claim is that these cases potentially provide an alternative model for database protection.

¹⁸³ Dee Ann Divis, *Database Legislation that Bites*, GEO INFO. SYS., May 1998:

Data may be too expensive to generate twice or may be historical and cannot be recreated. Environmental and remote sensing imagery is a good example of the latter problem. Samples or pictures are taken at a particular time; there is no way to go back and get original data from a year ago.

As discussed below in regard to the *sui generis* schemes, Kreiss argues that such denial of access disrupts the quid pro quo established by copyright. Kreiss, *supra* note 44, at 56.

¹⁸⁴ Kreiss, *supra* note 44.

¹⁸⁵ Kreiss, *supra* note 44, at 29 (arguing “if an author refuses to create a work because the incentive is not large enough, then the work will not be created. Complaining that the incentive is not large enough is not a reason for society to change the system for that author or group of authors.”). *Id.* at 31.

IV. PREMODERN COPYRIGHT CASES PROVIDE AN EFFECTIVE MODEL FOR DATABASE PROTECTION

A. *Use of the Term "Premodern"*

The term "premodern" refers to the period from the late eighteenth century to the 1850s. I have borrowed the term from *The Making of Modern Intellectual Property Law* by Brad Sherman and Lionel Bently.¹⁸⁶ In this book, the authors divide intellectual property law into the premodern and the modern. They argue that by around the 1850s, intellectual property law had developed its own logic and grammar. This period, therefore, is roughly the dividing line between the premodern and the modern. The authors acknowledge that this dividing line cannot be drawn with precision.¹⁸⁷ With this in mind, I will primarily be considering cases up to the 1850s. Some later cases that exhibit the principles of the premodern, however, will also be referenced. For my analysis, I shall refer to cases from both Great Britain and America. The reasoning is similar in both jurisdictions, and the judges in these cases often refer to cases from the neighboring jurisdiction.

Sherman and Bently argue that premodern intellectual property law had certain characteristics. Premodern law was not divided into our now-familiar categories—copyright, patent, designs, trademarks—but was subject specific and reactive.¹⁸⁸ The particular concern of premodern intellectual property law was with the mental or creative labor embodied in the protected subject matter. It employed the language, concepts and questions of classical jurisprudence. These characteristics may be contrasted with modern intellectual property law. Modern intellectual property law is careful to police the boundaries between intellectual property regimes. It tends to be more abstract and forward-looking than premodern law. Its focus is not on the labor embodied in the object, but on the object in its own right. Rather than employing the ideas of classical jurisprudence, it uses the resources of political economy and utilitarianism.

The characteristics of the premodern period—in particular its subject specific nature, its fluidity, and its interest in mental labor—make it interesting and relevant to the database debate.

¹⁸⁶ Sherman & Bently, *supra* note 23.

¹⁸⁷ *Id.* at 3 (acknowledging that this is not a perfect divide, but serves as "a useful basis" from which to explore and understand intellectual property law).

¹⁸⁸ During the premodern period, the categories of copyright, patent, and design were not clearly delineated. Thus, judges often speak of the "copyright" in an invention, or use the analogy of machinery to illustrate copyright principles. *See, e.g.,* *Wheaton v. Peters*, 33 U.S. 591 (1834); *Story v. Holcombe*, 23 F. Cas. 171, 173 (C.C.D. Ohio 1847) (No. 13,497); *Greene v. Bishop*, 10 F. Cas. 1128, 1134 (C.C.D. Mass. 1858) (No. 5,763).

B. *The Subject Matter of Early Copyright Cases and the Grant of Protection*

Informational works of low authorial presence, including compilations, were a common subject of copyright¹⁸⁹ disputes in pre-modern cases.¹⁹⁰ Premodern copyright cases granted protection readily to such works. In order to confer copyright protection, courts demanded that two criteria be satisfied. The first was that a work had to be original, in the sense that something new was brought into existence.¹⁹¹ The second criteria was that the work be the result of “mental labor.”¹⁹²

¹⁸⁹ The Statute of Anne, (1710) 8 Anne, ch. 19, granted authors copyright in their works for up to twenty-eight years. The Act was entitled “An act for the encouragement of learning, by vesting the copies of printed books in the authors or purchasers of such copies, during the times therein mentioned.” A number of early cases argued the issue as to whether common law copyright existed. *Millar v. Taylor*, 4 Burr. 2303 (1769); 98 Eng. Rep. 201, found in favor of a perpetual, post-publication common law copyright, but was overruled in *Donaldson v. Beckett*, 98 Eng. Rep. 257 (1774). Although the decision in the latter case was that post-publication copyright depended solely upon the Statute of Anne, there were still varying views on the matter expressed by the courts for some years. *See, e.g., Jefferys v. Boosey*, 4 H.L.C. 815 (1854); 10 Eng. Rep. 681. In the United States, the matter was debated at some length in *Wheaton v. Peters*, 33 U.S. 591 (1834).

¹⁹⁰ *Saunders v. Smith*, 3 Mylne & C 711; 40 Eng. Rep. 1100 (1838); *Wheaton v. Peters*, 33 U.S. 591 (1834) (compilations of law reports); *Wilkins v. Aikin*, 17 Ves. Jun. 422; 34 Eng. Rep. 163 (1810) (a book on Greek antiquities); *Mawman v. Tegg*, 2 Russ. 385; 38 Eng. Rep. 380 (1826) (an encyclopaedia); *Roworth v. Wilkes*, 1 Camp. 94; 170 Eng. Rep. 889 (1807) (a book on broadsword techniques); *Lewis v. Chapman*, 3 Beav. 132; 49 Eng. Rep. 152 (1840) (topographical dictionary); *Gyles v. Wilcox*, 2 Atk. 141; 26 Eng. Rep. 489 (1740) (alleged infringement of SIR MATTHEW HALE’S PLEAS OF THE CROWN); *Cary v. Kearsley*, 4 Esp. 168, 170 Eng. Rep. 679 (1802); *Cary v. Longman & Rees* 1 East 358; 102 Eng. Rep. 138 (road directory); *Bartlett v. Crittendon* 2 F. Cas. 967 (C.C.D. Ohio 1849) (No. 1,076) (manuscript on bookkeeping); *Bramwell v. Halcomb*, 3 My & Cr 737 (1836) (treatise on the MANNER OF PROCEEDING ON BILLS IN THE HOUSE OF COMMONS).

¹⁹¹ That is, reduced to a material form: “The *idea* when once reduced to writing, is susceptible of identity, and becomes the subject of property.” *Wheaton v. Peters*, 33 U.S. 591, 677 (Thompson, J., dissenting). In the specific context of a compilation, it was said in *Story v. Halcombe*, 23 F. Cas. 171, 174 (C.C.D. Ohio 1847) (No. 13,497), that:

To compile is to copy from various authors into one work. In this the judgment may be said to be exercised to some extent in selecting and combining the extracts. Such a work entitles the compiler . . . to a right of property. This right may be compared to that of a patentee, who, by a combination of known mechanical structures, has produced a new result.

Although the individual works could be copied, the originality requirement was that the work as a whole should exist for the first time, that is, not be copied from an existing work. *Longman v. Winchester*, 16 Ves. 269; Eng. Rep. 987 (1809).

¹⁹² *See infra* text accompanying note 194.

These two requirements are illustrated in *Gray v. Russell*.¹⁹³ In this case, the plaintiff alleged the defendant had infringed copyright in his *Latin Grammar*. The defendant argued that there was nothing substantially new in the notes to the plaintiff's text. All the notes in substance, and many in form, could be found in antecedent works. Justice Story said, however, that this was not the "true question" before the court:

The true question is, whether these notes are to be found collected and embodied in any former single work. It is admitted that they are not so found. The most, that is contended for, is, that [the plaintiff] has selected his notes from very various authors, who have written at different periods, and that any other person might, by a diligent examination of the same works, have made a similar selection. . . . Now, certainly, the preparation and collection of these notes from these various sources, must have been the a work of no small labor, and intellectual exertion. The plan, the arrangement, and the combination of these notes in the form, in which they are collectively exhibited in Gould's Grammar, belong exclusively to this gentleman.¹⁹⁴

Unlike *Feist*, the courts did not require an additional element of "creativity."

There were at least three reasons for imposing such a low threshold test for the grant of protection: the first rationale was the clear understanding that no work of authorship is truly original. Any attempt to protect "real" originality would mean that virtually no works in literature, science or art, would qualify for protection.¹⁹⁵

This did not mean, however, that an author had a monopoly over the information contained in such a work. This was made clear in *Emerson v. Davies*,¹⁹⁶ where the court said that an author had no right to appropriate to himself the materials that were common to all persons before he made the work.

¹⁹³ 10 F. Cas. 1035 (C.C.D. Mass. 1839) (No. 5,728).

¹⁹⁴ *Gray v. Russell*, 10 F. Cas. 1035, 1037 (C.C.D. Mass. 1839) (No. 5,728).

¹⁹⁵ See, e.g., *Emerson v. Davies*, 8 F. Cas. 615, 619 (C.C.D. 1845) (No. 4,436):

No man writes exclusively from his own thoughts, unaided and uninstructed by the thoughts of others. The thoughts of every man are, more or less, a combination of what other men have thought and expressed, although they may be modified, exalted or improved by his own genius or reflection.

See also Litman, *supra* note 46. The argument as to originality of factual works was also put forward by counsel in *Wheaton v. Peters*, 33 U.S. 591 (1834):

As to the objection that the matter of which the report is composed is not original; we answer this is wholly unnecessary in copyright. There is no analogy in that respect between copyrights and patents. A man who makes an Encyclopedia may have a copyright, although he does not write a word of it.

Ultimately, the point was not decided in this case.

¹⁹⁶ 8 F. Cas. 615, 619 (C.C.D. Mass. 1845) (No. 4,436).

Conversely, however, subsequent authors had no right to appropriate the author's labor or creativity. Such authors could not take the originator's materials with his "improvements superadded, whether they consist in plan, arrangement or illustrations, or combinations; for these are strictly his own."¹⁹⁷

The second rationale for this relatively easy grant of copyright is the importance that the courts placed generally upon informational works.¹⁹⁸ As was observed in *Jefferys v. Boosey*,¹⁹⁹ access to published works was an important social good. Learning was best encouraged by ensuring that learners had free access to the "advances in literature and science to be found in useful books."²⁰⁰ While mindful of the need to retain ideas and facts as "common property," the denial of protection to informational works was a result the courts wished to avoid. This view can be seen in *Lewis v. Fullarton*.²⁰¹ In this case, the plaintiff sought an injunction against alleged copyright infringement of his book, *The Topographical Dictionary of England*. The court granted the injunction. It found that a considerable amount of the defendant's book had simply been copied from the plaintiff's work. The court noted that if such an appropriation were to be considered lawful:

it is plain no protection whatsoever could be given to any work in the nature of a gazetteer, dictionary, road book, calendar, map or any other work the subject matter of which is open to common observation and enquiry; and that every man who had bestowed any amount of labour and expense in collecting and arranging the information requisite for the production of such a work, might immediately on its publication, be deprived of the fruit of his industry and ability.²⁰²

There was a keen appreciation that such an outcome could act as a disincentive to the creation of informational works, and thus was an undesirable consequence. This sensitivity to the incentives/access dilemma can be explained by the fact that the natural rights basis for copyright was still strong during this early period.²⁰³ The courts were keen to see that a creator was not deprived of the "fruits of his labors." At the same time they were also highly conscious that the grant of copyright was not the conferral of an unlimited monopoly. Rather, copyright was seen as a "deal" struck between the originator and the state. The

¹⁹⁷ *Emerson*, 8 F. Cas. at 619.

¹⁹⁸ *Gray*, 10 F. Cas. at 1035.

¹⁹⁹ 4 H.C.L. 815; 10 Eng. Rep. 681 (1854).

²⁰⁰ See Kreiss, *supra* note 44 (espousing a very similar view).

²⁰¹ 2 Beav. 6; 48 Eng. Rep. 1080 (1839).

²⁰² *Lewis v. Fullarton*, 2 Beav. 6, 9; 48 Eng. Rep. 1080, 1081 (1839).

²⁰³ Yen, *supra* note 45, at 517 (pointing out the eighteenth and nineteenth-century cases showed an appreciation for the natural rights, as well as the economic incentives, which formed the basis for the grant of copyright protection).

originator was assured of the right to exploit his or her creation, in return for the dissemination of new works to the public.²⁰⁴ This view can be seen in *Sayre v. Moore*,²⁰⁵ an action alleging copyright infringement in sea charts. Lord Mansfield, C.J., said that the principle in such a case was “of great consequence” to the nation. The court had to be careful to guard against two equally prejudicial extremes: “That men of ability, who have employed their time for the service of the community, may not be deprived of their just merits, and the reward for their ingenuity and labor; the other, that the world may not be deprived of improvements, nor the progress of the arts be retarded.”²⁰⁶

The third rationale for the easy grant of copyright was the belief that the origin of the property right granted was in production.²⁰⁷ Production was the result of the labor—be that effort or creativity—bestowed upon the work.²⁰⁸

²⁰⁴ “That every man is entitled to the fruits of his own labour must be admitted; but he can enjoy them only, except by statutory provision, under the rules of property, which regulate society, and which define the rights of things in general.” *Wheaton v. Peters*, 33 U.S. 591, 658 (1834). The public purposes of the grant of copyright are clearly seen in the preambles of early United States copyright statutes cited in that case.

²⁰⁵ 102 Eng. Rep. 139 n.b.

²⁰⁶ Thus, His Honor noted that copyright “guards against the piracy of . . . words and sentiments” but did not prohibit writing on a similar subject.” *Sayre v. Moore*, cited in Eng. Rep. 139 n.b; see also *Gyles v. Wilcox*, 2 Atk. 141, 143; 26 Eng. Rep. 489, 490 (1740). In *Sayre*, the Lord Chancellor was of the opinion that the Statute of Anne:

[o]ught to receive a liberal construction, for it is very far from being a monopoly, as it is intended to secure the property of books in the authors themselves, or the purchasers of the copy, as some recompense for their pains and labour in such works as may be of use to the learned world.

Id.

²⁰⁷ This was a belief held by both the courts and the legislature. For an example of the courts’ acceptance of this view see *Jeffery’s v. Boosey*, 4 H.L.C. 815, 867; 10 Eng. Rep. 581, 702 (1854), and later cases, such as *Exchange Telegraph Co. Ltd. v. Gregory & Company*, 1 Q.B. 147 (1896). In the United States context, see the discussion of counsel in *Wheaton v. Peters*, 33 U.S. at 591. Originality as meaning merely independent creation was upheld in *Hutchinson Telephone Co. v. Frontier Directory Co.*, 770 F.2d 128, 131–32 (8th Cir. 1985):

Hutchinson’s records are gathered and maintained for many purposes, including publication of a directory. The proper focus is not whether Hutchinson’s sole motivation for maintaining the records is the publication of a directory, but whether the directory itself is derived from information compiled and generated by Hutchinson’s efforts. That Hutchinson alone solicited, gathered, filed, sorted, and maintained the information on which the directory is based is undisputed.

For an example of legislative acceptance of the view, see the preamble to the 1783 Massachusetts Copyright Act quoted in *Wheaton*, 33 U.S. at 681 (“there being no *property* more peculiarly a man’s own, than that which is produced by the labour of his mind”).

²⁰⁸ *Wheaton*, 33 U.S. at 657:

The great principle on which the author's right rests, is, that it is the fruit or production of his own labour, and which may, by the labour of the faculties of the mind, establish a right of property, as well as by the faculties of the body; and it is difficult to perceive any well founded objection to such a claim of right.²⁰⁹

Such views were a consequence of the influence of Roman natural law, and the principle of occupancy as the primary form of acquisition.²¹⁰ This was reinforced by the work of Locke, in particular his notion that "a person who mixed her labor with an unowned object became morally entitled to property in that object."²¹¹ As a result, in premodern copyright, a person could claim ownership in her work to the extent that her labor resulted in its existence.²¹²

The "mental labor" protected by copyright encompassed both investment and creativity. It comprehended both "sweat of the brow"²¹³ and the "creativity" that may be found in the presentation of the content.²¹⁴ With regard to compilations, the grant of copyright was not made for a bare list. A compiler could not claim any right to the information in a compilation that was derived from the stock of common knowledge. He or she could claim copyright only if the compilation was

The argument that a literary man is as much entitled to the product of his labour as any other member of society, cannot be controverted. And the answer is, that he realises this product by the transfer of his manuscripts, or in the sale of his works, when first published.

²⁰⁹ *Id.* at 669–70 (Thompson, J., dissenting).

²¹⁰ Yen, *supra* note 45, at 522. This view can be seen in the argument of counsel for the defendant in *Wheaton*, 33 U.S. at 626:

Analogous rights, if such they may be called, are nothing without actual possession and use. Light and air, and a part of the great ocean, may be claimed and held, as long as necessary for the occupant; but abandon the immediate occupation, and the exclusive power and exclusive possession are gone together.

²¹¹ Yen, *supra* note 45, at 523.

²¹² Yen, *supra* note 45, at 524; *see also* *Wheaton*, 33 U.S. at 672 (Thompson, J., dissenting) ("Every principle of justice, equity, morality, fitness and sound policy concurs, in protecting the literary labours of men, to the same extent that property acquired by manual labour is protected").

²¹³ That is, the time, expense, and labor embodied in the compilation. *See also* *Wheaton*, 33 U.S. at 657–58:

In what respect does the right of an author differ from that of an individual who has invented a most useful and valuable machine? In the production of this, his mind has been as intensely engaged, as long; and, perhaps, as usefully to the public, as any distinguished author in the composition of his book. The result of their labours may be equally beneficial to society, and in their respective spheres they may be alike distinguished for mental vigour.

²¹⁴ *Mawman v. Tegg*, 2 Russ. 385; 39 Eng. Rep. 380 (1826).

the result in some respect of independent work on his or her part.²¹⁵ This “independent work,” however, could encompass the gathering and compiling of information; or it could encompass a new and creative presentation of an existing body of information. Thus, in *Lamb v. Evans*, the plaintiff could gain copyright protection for his labor and expense incurred in compiling *The International Guide to British and Foreign Merchants and Manufacturers*.²¹⁶ In *Mawman v. Tegg*, the plaintiff was granted copyright protection for the plan and arrangement of his encyclopedia.²¹⁷

This two-fold nature of copyright protection changed over time. During the late nineteenth and early twentieth centuries, the protection of effort per se, receded. Greater stress was placed upon individualism and the author’s presence in a final product. Arguments for protection were stronger the more a creator was “embodied” in the final product.²¹⁸ Conversely, the argument for protection was considered to be weak where there was little evidence of authorial personality. This brings us to the decision in *Feist* and its disparagement of “sweat of the brow” as a basis for copyright. Contrary to the view expressed in *Feist*, however, “sweat of the brow” does not necessarily entail the grant of a proprietary right in facts. A distinction must be drawn, as a number of commentators have observed,²¹⁹ between the grant of copyright and infringement of copyright. This was the crux of the early copyright cases, and the distinction between modern “sweat of the brow” cases and premodern copyright.

C. *Infringement*

Although premodern cases were quick to grant copyright protection, the scope of infringement was considerably narrower than in modern cases. This was because there was a wider notion of what constituted legitimate use. In modern copyright cases, a plaintiff need establish only substantial similarity and access—or a “causal connection”—in order to establish infringement.²²⁰ In such cases,

²¹⁵ *Leslie v. J. Young & Sons*, (1894) A.C. 335.

²¹⁶ *Lamb v. Evans*, 1 Ch. 218, CA (1893); see also *Drury v. Ewing*, 7 F. Cas. 1113, 1116 (C.C.S.D. Ohio 1862) (No. 4,095); *Scott v. Stanford*, 3 L.R.-Eq. 718 (1867); *Gray v. Russell*, 10 F. Cas. 1035 (C.C.D. Mass. 1839) (No. 5,728).

²¹⁷ In support of this view, see *Emerson v. Davies*, 8 F. Cas. 615, 619 (C.C.D. Mass. 1845) (No. 4,436); see also *Lawrence v. Dana*, 15 F. Cas. 26 (C.C.D. Mass. 1869) (No. 8,136) (although by this time, the distinction between arrangement on the one hand and sweat of the brow on the other was becoming more obvious); *Mawman v. Tegg*, 2 Russ. 385; 39 Eng. Rep. 380 (1826).

²¹⁸ *Sherman & Bently*, *supra* note 23, at 145.

²¹⁹ See, e.g., *Gorman*, *supra* note 75; *Denicola*, *supra* note 75.

²²⁰ *Corelli v. Gray*, (1913) 29 T.L.R. 570; *Francis Day & Hunter Ltd. v. Bron*, (1963) Ch. 587.

courts will find infringement almost without regard to the context or the manner in which the defendant reuses the plaintiff's work.²²¹ This relatively wide notion of authors' rights is a further consequence of the growth in individualism and concern for authorial presence,²²² discussed above.

The premodern cases took a much narrower view of infringement. The right granted by premodern copyright was the right to multiply copies of the original work.²²³ Copyright signified "the sole right of printing, publishing and selling" literary compositions. Authors generally were not granted derivative rights in a work.²²⁴ An illustration of this principle can be seen in *Stowe v. Thomas*.²²⁵ The alleged infringement in this case was a translation of Stowe's novel, *Uncle Tom's Cabin*. The action for breach of copyright was unsuccessful. In regard to the rights conferred by copyright, the court said:

The author's exclusive property in the creation of his mind cannot be vested in the author as abstractions, but only in the concrete form which he has given them, and the language in which he has clothed them. When he has sold his book, the only property which he reserves to himself, or which the law gives to him, is the exclusive right to multiply the copies of that particular combination of characters which exhibits to the eyes of another the ideas intended to be conveyed. That is what the law terms copy, or copyright.²²⁶

As the right bestowed was merely to multiply copies, and enjoy the resulting profits, in questions of infringement:

the inquiry is not, whether the defendant has used the thoughts, conceptions, information or discoveries promulgated by the original, but whether his composition may be considered a new work, requiring invention, learning and judgment, or only a

²²¹ Lunney, *supra* note 22, at 534. This is because of the expansion of authors' rights.

²²² Yen, *supra* note 45, at 519; *see also* Ginsburg, *Creation and Commercial Value*, *supra* note 4, at 1882.

²²³ The Statute of Anne, (1710) 8 Anne, ch. 19, § 1, conferred the sole right of printing or reprinting.

²²⁴ Under modern copyright, low authorship works are entitled to the exclusive rights of copyright, including the right to prepare derivative works. *See* Reichman, *supra* note 19, at 813. He argues that almost by definition, these works contain little or no personal expression and this negates the classic justification for a strong adaptation right. However, judicial decisions have prevented competitors from using preexisting compilations as starting points to save time, money or effort, or from exploiting disparate factual contents of preexisting works in creating different and sometimes noncompeting works.

²²⁵ *Stowe v. Thomas*, 23 F. Cas. 201 (C.C.E.D. Penn. 1853) (No. 13,514); *see also* *Greene v. Bishop*, 10 F. Cas. 1128 (C.C.D. Mass. 1858) (No. 5,763).

²²⁶ *Stowe*, 23 F. Cas. at 206-07.

mere transcript of the whole or parts of the original, with merely colorable variations.²²⁷

Infringement in the premodern cases had two components. A plaintiff had to establish, firstly, appropriation. He or she was required to prove that a defendant availed himself or herself of the mental labor embodied in the plaintiff's work without adequately compensating the plaintiff. The plaintiff then had to establish illegitimate use. He or she needed to show that the defendant's use was calculated to interfere seriously with the market²²⁸ for the plaintiff's work.

1. *Appropriation*

For the purposes of establishing infringement, appropriation could be of two types: wholesale appropriation, or the appropriation of a significant part of the work. Wholesale appropriation of a work was relatively easily judged. A servile imitation of the original work would certainly attract censure.²²⁹ Similarly, the incorporation of the whole, or a large portion of the whole into a larger work in a "mosaic"-like manner²³⁰ would also constitute piracy.²³¹

Where less than the entirety of the work was taken, infringement depended upon such considerations as the value of the materials taken, and the importance of it to the sale of the original work.²³² In *Folsom v. Mars*,²³³ the plaintiff alleged copyright infringement in a twelve-volume compilation of the *Writings of President Washington*. The defendant had reproduced verbatim 353 pages from 866 of the plaintiff's work. Many of the letters contained in the original had never been published before. The court said:

²²⁷ *Id.*

²²⁸ *See, e.g.,* *Drury v. Ewing*, 7 F. Cas. 1113, 1116 (C.C.S.D. Ohio 1862) (No. 4,095) (noting that the issue was whether the alleged piracy rendered the original "less valuable by superseding its use in any degree"). In this case, the fact that a second work was an improvement on the first was not a sufficient reason to prevent a finding of copyright infringement. *See also* *Mawman v. Tegg*, 2 Russ. 385, 400; 38 Eng. Rep. 380, 386 (including a discussion by Lord Chancellor Eldon where he explained the remedy of account of profits and the rule of *Drury* is implicitly accepted).

²²⁹ *Emerson v. Davies*, 8 F. Cas. 615, 620 (C.C.D. Mass. 1845) (No. 4,436); *Leslie v. J. Young & Sons* (1894) A.C. 335.

²³⁰ As opposed to the work being 'fused' or synthesized into the new work. *Folsom v. Marsh*, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841) (No. 4,901).

²³¹ *Gray v. Russell*, 10 F. Cas. 1035, 1037 (C.C.D. Mass. 1839) (No. 5,728); *Emerson*, 8 F. Cas. at 625; *Greene v. Bishop*, 10 F. Cas. 1128, 1134 (C.C.D. Mass. 1858) (No. 5,763).

²³² *Folsom*, 9 F. Cas. at 345; *Story v. Holcombe*, 23 F. Cas. 171, 173 (C.C.D. Ohio 1847) (No. 13,497).

²³³ *Folsom*, 9 F. Cas. at 342.

It is certainly not necessary, to constitute an invasion of copyright, that the whole of a work should be copied, or even a large portion of it in form or substance. If so much is taken, that the value of the original is sensibly diminished, or the labors of the original author are substantially to an injurious extent appropriated by another, that is sufficient in point of law, to constitute a piracy pro tanto. The entirety of the copyright is the property of the author; and it is no defence, that another person has appropriated a part, and not the whole, of any property. Neither does it necessarily depend upon the quantity taken, whether it is an infringement of the copyright or not. It is often affected by other considerations, the value of the materials taken, and the importance of it to the sale of the original work.²³⁴

Use of another's material per se was not actionable.²³⁵ The issue was one of the use to which the material was put.

2. *An Illegitimate Use*

The central issue in the premodern cases was whether the defendant's use of the work was a legitimate one, "in the fair exercise of a mental operation and deserving the character of an original work."²³⁶ In the premodern cases, fair use was a general standard against which to assess infringement. It was not merely a defense to an allegation of infringement as it is today.²³⁷ In *Hotten v. Arthur*,²³⁸ Hotten produced a catalogue of his books. He alleged that the defendants, rival booksellers, infringed this copyright. In finding infringement, the court said:

the only fair use you can make of the work of another of this kind is where you take a number of such works; catalogues, dictionaries, digests &c; and look over them all and then compile an original work of your own, founded on the information you have extracted from each and all of them; but it is of vital importance that such new work should have no mere copying, no merely colourable alterations, no blind repetition of obvious errors.²³⁹

In this case, however, there had been wholesale piracy. The defendant availed himself of the plaintiff's labour to supply the same article to the public, but at a

²³⁴ *Id.* at 345; see also *Bramwell v. Halcomb*, 3 Mylne & Co. 737, 738 (1836); *Saunders v. Smith*, 3 Mylne & Co. 711, 736, 737 (1838) (referred to in the Court's judgment).

²³⁵ *Cary v. Kearsley*, 4 Esp 168, 170; 170 Eng. Rep. 679, 680 (1802); see also *Webb v. Power*, 29 F. Cas. 511, 517, 519 (C.C.D. Mass. 1847) (No. 17,323).

²³⁶ *Bramwell*, 3 Mylne & Co. at 738; *Wilkins v. Aikin*, 17 Ves 422, 426; 34 Eng. Rep. 163, 165.

²³⁷ *Lunney*, *supra* note 22, at 546–48.

²³⁸ 1 H & M 603; 71 Eng. Rep. 264.

²³⁹ *Id.* at 609.

lower price. On the other hand, in *Webb v. Powers*²⁴⁰ legitimate use was made of the plaintiff's work. The plaintiff alleged that copyright had been infringed in her work, *Flora's Dictionary*. Although aspects of the plaintiff's work had been copied, "the main intent was to make a much cheaper work, and one with original poetry, rather than colorably to republish the plaintiff's or any similar book."²⁴¹

It was open to any person to produce a work similar to the original, but it must in substance be a new and original work.²⁴² Mere reproduction of an original work was infringement. There had to be some public benefit in the use of the original work by a second comer. A mere republication, even if it were to be cheaper than the original,²⁴³ did not serve the public interest.²⁴⁴ Thus, it was said in *Webb v. Powers* that:

if great errors have not previously existed, or unusual ignorance to be corrected, no great novelty is practicable or useful; unless it be to add new discoveries or inventions, new names, or words, or decisions—so as to post up the subject to more recent periods—or unless it be to abridge and omit details, and condense a more voluminous work into a smaller and cheaper form, so as to bring its purchase and use within the reach of new and less wealthy classes in society. Some similarities, and

²⁴⁰ 29 F. Cas. 511, 517 (C.C.D. Mass. 1847) (No. 17,323).

²⁴¹ *Id.* at 520–21. The distinction between the two works was expressed rather colorfully by Judge Woodbury:

Both of these works are flowers, and not destitute of charms; but one is more like the magnolia grandiflora or japonica in size and attraction, and the other, like the wayside violet or anemone. They both come from females, with loveliness peculiar to their sex; but they still essentially differ; as one develops matronly experience and more ripened graces, while the other is just opening her buds and blossoms.

Id. at 518.

²⁴² *Stowe v. Thomas*, 23 F. Cas. 201, 207 (C.C.E.D. Penn. 1853) (No. 13,514)

The inquiry is not, whether the defendant has used the thoughts, conceptions, information or discoveries promulgated by the original, but whether his composition may be considered a new work, requiring invention, learning and judgment, or only a mere transcript of the whole or parts of the original, with merely colourable variations.

²⁴³ *Scott v. Stanford*, 3 L.R.-Eq. 718, 723–24 (1867).

²⁴⁴ *Bartlett v. Crittendon*, 2 F. Cas. 967, 969 (C.C.D. Ohio 1849) (No. 1,076):

[T]he author who publishes his word, dedicates it to the public. He voluntarily incurs all the responsibility of a publisher. His object is to instruct or amuse mankind, and the more his work is circulated, the greater is the compliment to his ability as a writer. There is no reason, then, against a republication of the work by any one, except that it may reduce the profits of the author.

See also *Baker v. Selden*, 101 U.S. 99, 103 (1879) ("The very object of publishing a book on science or the useful arts is to communicate to the world the useful knowledge which it contains.").

some use of prior works, even to copying of small parts, are in such cases tolerated, if the main design and execution are in reality novel or improved, and not a mere cover for important piracies from others.²⁴⁵

On this basis, a defendant was welcome to use an original work to produce a new work of benefit to the public.²⁴⁶ As was noted above, in this particular case, the defendant's work, although it copied features of the plaintiff's, was quite different from the plaintiff's work; and, in any case, was suited to a "different and humbler class of readers."²⁴⁷ The court considered the use of the original work as "legitimate." On the other hand, use of an original work was found to be illegitimate, as in *Hotten v. Arthur*, where the second work would serve as a substitute²⁴⁸ for the original or prejudice²⁴⁹ the original in the market.²⁵⁰ Thus, protection was primarily against commercial and competitive use.²⁵¹

In assessing infringement, many courts looked to the *animus furandi*, the intention to steal: if present, this would establish infringement.²⁵² In *Cary v. Kearsley*,²⁵³ Lord Ellenborough said that finding part of the work of one author in the work of another was not sufficient to support the action. Anyone could fairly adopt part of the work from another, or use another's labor for the "promotion of science and the benefit of the public." However, the question was whether a work was taken with such a view, and without the *animus furandi*:

That part of the work of one author is found in another, is not of itself piracy, or sufficient to support an action; a man may fairly adopt part of the work from another; he may so make use of another's labours for the promotion of science, and the benefit of the public; but having done so, the question will be: Was the matter so taken used fairly with that view, and without what I may term the *animus furandi*?

²⁴⁵ *Webb*, 29 F. Cas. at 517; see also *Trusler v. Murray*, 1 East, 363; *Gray v. Russell*, 12 Ves. 270; 16 Ves. 269; 17 Ves. 422.

²⁴⁶ *Hogg v. Kirby*, 8 Ves Jun 215; 32 Eng. Rep. 336; 34 Eng. Rep. 1013 (1803); see also *Jarrod v. Houlston*, 3 K & J 708; 69 Eng. Rep. 1294 (1857).

²⁴⁷ *Webb*, 29 F. Cas. at 518.

²⁴⁸ *Folsom v. Marsh*, 9 F. Cas. 342, 345 (C.C.D. Mass. 1841) (No. 4,901); *Story v. Halcombe* 23 F. Cas. 171 (C.C.D. Ohio 1847) (No. 13,497); *Roworth v. Wilkes*, 1 Camp. 94, 98; 170 Eng. Rep. 889, 890 (1807).

²⁴⁹ *Dodsley v. Kinnersley*, 1 Amb. 403; 27 Eng. Rep. 270 (1761).

²⁵⁰ *Greene v. Bishop*, 10 F. Cas. 1128, 1134 (C.C.D. Mass. 1858) (No. 5,763).

²⁵¹ The test in *Folsom v. Marsh* was whether the second work would "prejudice the sale, or diminish the profits, or superseded the objects, of the original work." 9 F. Cas. at 348.

²⁵² *But see Story*, 23 F Cas at 173 (stating that the intention was irrelevant).

²⁵³ 4 Esp. 168, 170, 170 Eng. Rep. 679, 680 (1802).

The converse was not true however. Lack of guilty intent could exonerate a defendant.²⁵⁴ A defendant could be liable for infringement, even if there was no *animus furandi*,²⁵⁵ if much of an original work had been taken and the new work was a mere substitute for the original²⁵⁶ or prejudiced the original.²⁵⁷ In *Scott v. Stanford*,²⁵⁸ Scott was clerk and registrar of the Coal Market of the City of London. As such, he published certain statistical returns relating to the importation of coal. He alleged copyright in his work was infringed by Stanford. Around one third of Stanford's book, *Mineral Statistics for the use of Great Britain and Ireland*, was reproduced verbatim from Scott's publications. Sir Page Wood VC said that if the bulk of a plaintiff's publication had been appropriated and published in a form that would materially injure his copyright, mere honest intention on the part of the appropriator would not suffice to avoid a finding of infringement.

The test for illegitimate use was stated in various ways. In *Webb v. Powers*,²⁵⁹ the test was stated as being:

Whether the book of the defendants, taken as a whole, is substantially a copy of the plaintiff's? Whether it has virtually the same plan and character throughout, and is intended to supersede the other in the market with the same class of readers and purchasers, by introducing no considerable new matter, or little or nothing new, except colourable deviations?

In *Lawrence v. Dana*,²⁶⁰ the test was stated as follows: was so much of the original taken "that the value of the original is sensibly diminished, or the labors of the original author are substantially, to an injurious extent, appropriated by another?" In deciding the question, the court should look to the nature and objects of the selection made, the quantity and value of the materials used, and the

²⁵⁴ See *Lawrence v. Dana*, 15 F. Cas. 26, 27 (C.C.D. Mass. 1869) (No. 8,136); see also *Scott v. Stanford*, 3 L.R.-Eq. 718, 723 (1867):

mere honest intention on the part of the appropriator will not suffice, as the Court can only look at the result, and not the intention in the man's mind at the time of doing the act complained of, and he must be presumed to intend all that the publication of his work effects.

²⁵⁵ *Emerson v. Davies*, 8 F. Cas. 615, 625 (C.C.D. Mass. 1845) (No. 4,436) (finding infringement even though there was no determination that the defendants acted without good faith).

²⁵⁶ *Webb v. Powers*, 29 F. Cas. 511, 517 (C.C.D. Mass. 1847) (No. 17,323); *Folsom v. Marsh*, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841) (No. 4,901).

²⁵⁷ *Folsom*, 9 F. Cas. at 348.

²⁵⁸ 3 L.R.-Eq 718 (1867).

²⁵⁹ 29 F. Cas. at 511.

²⁶⁰ 15 F. Cas. 26, 76-77 (C.C.D. Mass. 1869).

“degree in which the use may prejudice the sale or diminish the profits, or supersede the objects of the original work.” In *Saunders v. Smith*,²⁶¹ the defense argued that the questions to be asked were: is the subsequent work new and original? Is it published with piratical intent? If so, can this work become a substitute for the old one?

Despite these variations in the test to be used, these formulations show a widespread agreement. Was the work a bona fide attempt to provide the public with something new and useful, or was the second work a mere appropriation of the first that would prejudice or supersede the original work in the marketplace?

2. *The Implications for Second Comers*

The effect of the decisions in the premodern cases was that a published work was open to legitimate use by others,²⁶² provided that the work was not essentially a republication of the original. A second comer could use a preexisting work in one of three ways: first, a second comer could use the original work to create something completely new, which gave the public something that the original work did not. Thus, in *Sayre v. Moore*,²⁶³ the defendant had taken the body of his sea charts from the plaintiff’s work, but had made many alterations and improvements to it. This was sufficient to avoid infringement. A prior work could serve as the basis for a new work. To be used legitimately, it should be “fused” into that work, rather than incorporated in a “mosaic” manner,²⁶⁴ unless the quantity taken was insubstantial. Alternatively, a second comer could use the original work to produce a new work that did not compete with the original work in the market, as in *Webb v. Powers*. Thus, most bona fide abridgments,²⁶⁵

²⁶¹ 3 Mylne & Co. 711, 40 Eng. Rep. 1100.

²⁶² *Greene v. Bishop*, 10 F. Cas. 1128, 1133 (C.C.D. Mass. 1858) (No. 5,763); *see also* *Kreiss*, *supra* note 42, at 42 n.146 (observing the modern fair use doctrine was developed in the nineteenth century in the context of allowing competitors to make use of copyrighted work).

²⁶³ 1 East 361 n.140.

²⁶⁴ *Folsom v. Marsh*, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841) (No. 4,901).

²⁶⁵ *Bell v. Walker & Debrett*, 1 Bro. C.C. 452; 28 Eng. Rep. 1235 (1985); *Folsom*, 9 F. Cas. at 342; *Story v. Holcombe*, 23 F. Cas. 171 (C.C.D. Ohio 1847) (No. 13,497). As the counsel for the defense in *Wheaton v. Peters*, 33 U.S. 591 (1834) stated:

An abridgement fairly done, is itself authorship, requires mind; and is not an infringement, no more than another work on the same subject. . . . Abridgements are the efforts of different minds. A bona fide abridgement was one that was a “real substantial condensation of the materials” and not a “facile use of the scissors.”

See *Dodsley v. Kinnersley*, 1 Amb. 403, 405; 27 Eng. Rep. 270, 271 (1761) (“No certain line can be drawn, to distinguish a fair abridgement; but every case must depend upon its own circumstances.”); *see also* *Macklin v. Richardson*, 27 Eng. Rep. 451 (1990) (noting the reproduction of one act of a play, with an undertaking to print the second act, was considered to

reviews,²⁶⁶ and digests were not infringements because they did not seek to serve as substitutes for the original work.²⁶⁷ However, where a work purported to be an abridgement, review, or digest, but would really serve as a substitute for the original work, infringement would be made out. This was the case in *Roworth v. Wilkes*,²⁶⁸ where the plaintiff alleged breach of copyright in his book *The Art of Defence on Foot with the Broadsword*. The defendants had reproduced much of his work in their *Encyclopaedia Londinensis*. Lord Ellenborough said:

The question is, whether the defendant's publication would serve as a substitute for it? A Review will not in general serve as a substitute for the book reviewed; and even there, if so much is extracted that it communicates the same knowledge with the original work, it is an actionable violation of literary property. The intention to pirate is not necessary in an action of this sort; it is enough that the publication complained of is in substance a copy, whereby a work vested in another is prejudiced. A compilation of this kind may differ from a treatise published by itself; but there must be certain limits fixed to its transcripts; it must not be allowed to sweep up all modern works; or an Encyclopaedia would be a recipe for completely breaking down literary property. Here 75 pages have been transcribed out of 118, and that which the plaintiff sold for half-a-guinea may be bought of the defendant for eightpence.²⁶⁹

If a subsequent author wanted to create an essentially identical work that directly competed with the original in the market, he or she had two choices. The second comer could compensate the originator for that use; or he or she could repeat the original research process. This latter requirement is known as the verification rule. A second comer who wanted to compete against the originator

be the work itself, and not an abridgement, as the defendant had argued); *see also* *Tonson v. Walker*, 3 Swan. 672, 681, 36 Eng. Rep. 1018, 1020 (1952) (work in question was not a fair abridgment but a "mere evasion"); *Gyles v. Wilcox*, 2 Atk. 141, 143; 26 Eng. Rep. 489, 490 (1740) (stating that where books are "colorably shortened" only, that would not constitute a bona fide abridgment, but this should not be carried so far as to restrain people from making a real abridgment, "for abridgments may with great propriety be called a new book, because not only the paper and print, but the invention, learning, and judgment of the author is shewn in them, and in many cases are extremely useful"). *But see* *Whittingham v. Wooler*, 2 Wans. 428; 36 Eng. Rep. 679 (1817) (reproducing six pages out of forty of a farce in a magazine was not considered actionable).

²⁶⁶ *See* statements by Lord Ellenborough in *Roworth v. Wilkes*, 1 Camp. 94, 98, 170 Eng. Rep. 889, 890 (1807); Lord Chancellor Eldon in *Wilkins v. Aikin*, 17 Ves. Jun. 422, 424, 34 Eng. Rep. 163, 164 (as to what would constitute a "fair quotation").

²⁶⁷ *Lawrence v. Dana*, 15 F. Cas. 26, 68 (C.C.D. Mass.) (No. 8,136); *Stowe v. Thomas*, 23 F. Cas. 201, 207 (C.C.E.D. Penn.) (No. 13,514). *But see* *Story v. Holcombe*, 23 F. Cas. 171, 172-73 (C.C.D. Ohio 1847) (No. 13,497) (stating that the argument that an abridgement does not seek to serve as a substitute to the original work was not satisfactory).

²⁶⁸ 1 Camp 94; 170 Eng. Rep. 889 (1807).

²⁶⁹ *Id.* at 98.

was also required to expend the labor and time, rather than cut corners by relying upon the originator's work. As one case put it, a subsequent author must "count the milestones"²⁷⁰ for himself. This rule was disparaged in *Feist* as forcing a second comer to waste time, effort and expense in duplicating the originator's work.²⁷¹ However, there were strong public policy reasons behind this view. In *Matthewson v. Stockdale*,²⁷² Lord Chancellor Erskine said:

The Defendant had not made a map from actual surveys; employing persons to improve or correct; but took a copy, with merely colourable alterations. It might be asked, how is it possible to have a Copyright in a Map of the Island of St Domingo? Must not the mountains have the same position; the rivers the same course? Must not the points of land, the coast connecting them, the names given by the inhabitants, every thing constituting a map, be the same? All those objections were urged. The answer was, that the subject of the plaintiff's claim was a map, made at great expense, from actual surveys: distinguished from former maps by improvements, that were manifest: the defendant's map was a servile imitation; requiring no expence, no ingenuity; possessing nothing, that could confer copyright.

Must not the latitude and longitude of the several points upon the adjoining shores, and the soundings, be the same, as they were placed by nature? They must be the same; or the chart must destroy the mariner. What room can there be for originality upon such a subject? That may be a reason for not making a new chart or map: but it is no reason for a servile imitation.²⁷³

The rule was based upon the policy of encouraging the production of new goods. The courts should not encourage the reproduction of servile imitations made so as to undercut the originator in the marketplace.

A second public policy behind the rule was that it was in the public interest that errors in existing works should be corrected. In the case of maps and sea charts, as in *Sayre v. Moore*,²⁷⁴ the court's view was that if an erroneous chart had

²⁷⁰ *Kelly v. Morris*, 1 L.R.-Eq. 697, 701 (1866). As Sir W. Paige Wood V.C., stated:

In the case of a dictionary, map, guide-book, or directory, when there are certain common objects of information which must, if described correctly, be described in the same words, a subsequent compiler is bound to set about doing for himself that which the first compiler has done. In case of a road-book, he must count the milestones for himself.

²⁷¹ Litman, *supra* note 46, at 1016 (arguing that the verification rule was the courts' intuitive response to the unlikely occurrence that an author would make an inadvertent use of directory listings because people do not ordinarily learn the contents of directories). This is perhaps true, but the cases also show strong public policy reasons for their decisions.

²⁷² 12 Ves. Jun. 270; 33 Eng. Rep. 103, 104-05 (1806).

²⁷³ See similar comments in *Lamb v. Evans*, 1 Ch. 218 (1893) (stating that despite the likelihood that fact-based works on the same subject will contain significantly similar information, an originator can stop a second comer from copying his or her work).

²⁷⁴ 1 East 361 n.140.

been made, "God forbid it should not be corrected even in a small degree, if it thereby become more serviceable and useful for the purposes to which it is applied."²⁷⁵ However, the verification rule could not be used to mask an appropriation. In *Moffatt & Paige Ltd v. George Gill & Sons Ltd v. Frances Marshall*,²⁷⁶ the plaintiffs alleged infringement of annotated editions of Shakespeare's plays. Collins MR, relying upon premodern copyright cases,²⁷⁷ said that the verification rule did not allow the defendant to merely look up and verify quotations. It did not entitle him to "annex the skill and judgment and taste which . . . dictated the selection."²⁷⁸

In summary, then, premodern copyright granted copyright protection relatively easily, on the basis of mental labor. Mental labor could encompass either sweat of the brow or creativity. The easy grant of copyright did not, however, give a proprietary right in facts. Infringement was made out only if there was an appropriation of the original work and an illegitimate use made of that appropriation. An illegitimate use was one where the second work would substitute for the original work or prejudice it in the market. There was no penalty imposed on a second comer who relied bona fide upon the originator's work in order to produce a new work. Legitimate use by those engaged in research or other non-competing uses was also permitted. It was also open to a subsequent author to produce an identical competing work. To do so, she had either to compensate the originator or undertake the research process for herself.

a. *A Model of Database Protection Based upon the Premodern Copyright Cases*

The premodern model offers an alternative model to existing copyright.²⁷⁹ The advantages of a model based upon the premodern cases are best understood by comparing such a model with existing copyright and *sui generis* models.

²⁷⁵ Similarly, in the later case of *Moffatt & Paige Ltd. v. George Gill & Sons Ltd v. Frances Marshall*, 86 L.T. 465, 471 (1902), Collins MR said that the verification rule did not allow the defendant merely to look up and verify quotations, thus entitling him "to annex the skill and judgment and taste which had dictated the selection."

²⁷⁶ 86 L.T. 465 (1902).

²⁷⁷ *Jarrod v. Houlston*, 3 K & J 708, 69 Eng. Rep. 1294 (1857); *Lewis v. Fullarton*, 2 Beav.6; 48 Eng. Rep. 1080 (1839); *Longman v. Winchester*, Ves. Jun. 272, Eng. Rep. 988.

²⁷⁸ See Litman, *supra* note 46, at 1016 (pointing out that the verification rule did not remove facts from the public domain; it simply prohibited a single, albeit more efficient route, to unearthing them).

²⁷⁹ This model would be in keeping with the recommendation of DIGITAL DILEMMA, *supra* note 18, at xxix-xxx, as to the possibility of an alternative foundation for copyright:

The premodern model would provide significantly more protection to databases than does the model of copyright used in *Feist*. This model would not require “creativity” in addition to “originality” in order to confer copyright protection upon databases. On the other hand, the premodern model would provide significantly narrower protection than is available under the “sweat of the brow” cases such as *Waterlow*. It would not confer a “derivative” or “adaptation” right; nor would it stop others from using a database as the basis for a new work, provided that work is not a mere piracy of the original. It would still be open to second comers to use the original work under license from the originator, or to recreate the database themselves. Fair use would not, however, be a defense, but would be central to the issue of infringement: uses apart from illegitimate uses, would be retained.

The premodern model would provide significantly more public access to databases than would most existing *sui generis* models. The premodern model would allow access not only for traditional fair use purposes, but also for competitors to produce new and better databases. The onus would be upon the plaintiff to establish that the defendant had appropriated the database and used it for an illegitimate purpose. Further, protection would not be perpetual. A database that is significantly amended may obtain protection as a new work. The old database upon which it is based, however, would come into the public domain at the expiry of the copyright period.²⁸⁰

The committee suggests exploring whether or not the notion of copy is an appropriate foundation for copyright law, and whether a new foundation can be constructed for copyright, based on the goal set forth in the Constitution (“promote the progress of science and the useful arts”) and a tactic by which it is achieved, namely, providing incentive to authors and publishers. In this framework, the question would not be whether a copy had been made, but whether a use of a work was consistent with that goal and tactic (i.e., did it contribute to the desired “progress” and was it destructive, when taken alone or aggregated with other similar copies, of an author’s incentive?). This concept is similar to fair use but broader in scope, as it requires considering the range of factors by which to measure the impact of the activity on authors, publishers, and others.

²⁸⁰ A similar view that the duration of protection should be limited can be found in Sanks, *supra* note 5, at 1013. In general, copyright has always treated attempts to gain a perpetual monopoly by making some alterations to an original copyright work with some suspicion. *See, e.g., Black v. Murray*, 9 M. 341 (1870) (suggesting that “extensive and substantial” amendments to an existing work were necessary to sustain a proposition that a work was deserving of copyright protection as a “new edition”); *see also Interlego Ag v. Tyco Indus., Inc.*, A.C. 217 (1989) (noting that the Privy Council rejected the attempts of a copyright owner to obtain effectively a perpetual monopoly by redrawing the same component with minimal visual alterations). *But see Blacklock v. Pearson*, 2 Ch. 376, 383 (1915) (suggesting that a book of constantly changing subject matter may give rise to a new work as the subject matter changed).

v The premodern model may also have some advantages over unfair competition models. Unlike H.R. 1858, the right of action would lie with the plaintiff. Because the model confers a copyright, an action for infringement could also lie against the information Samaritan who, by his or her actions, prejudiced the database in the market.²⁸¹ In addition, courts have traditionally had relatively little difficulty in determining both the grant of copyright and infringement in “sweat of the brow” copyright. Unfair competition jurisprudence has proved to be more controversial.

A premodern model may need, however, to be “tweaked” in a number of ways. As I said at the outset, my intention in writing this paper was not to develop a comprehensive legislative model of database protection. I do have some suggestions as to additions and alterations to such a model that seem desirable. First, the duration of the right would not need to be as long as in traditional copyright. A five to ten year protection period would seem adequate.²⁸²

Second, databases that are inaccessible, or largely inaccessible to the public, pose particular problems regardless of the form of protection. It would be open to incorporate in a *sui generis* scheme some measures to ensure that inaccessible commercialized databases are brought into the public domain. This could be done in a variety of ways. Some commentators have suggested compulsory licensing schemes for databases that are of significance to the public.²⁸³ Kreiss has suggested a wider interpretation of fair use²⁸⁴ and the withholding of injunctions to ensure that information is accessible. It would also be possible to incorporate provisions similar to those of the EU that would void contractual provisions that deny public access for legitimate purposes.

V. CONCLUSION

In this paper I have argued for a copyright-based model of database protection because of the premises upon which copyright is based. These

²⁸¹ Some support for this view is to be found in the decision of *Ager v. Peninsular & Oriental Navigation Co.*, 26 Ch. D. 637 (1884) (noting that the plaintiff published the “Standard Telegram Code” and alleged its copyright in this work was infringed by the defendant, whose book was not sold or exported, but distributed for free to the defendant’s agents). The court found copyright infringement was made out. If this were not to be found an infringement of copyright, anyone to whom the defendant gave the book could inform the whole world of the plaintiff’s work, thus rendering his book comparatively useless. *Id.* at 642.

²⁸² See Sanks, *supra* note 5, at 1013 (taking a similar view on this point, arguing that a shorter period is in line with the realization that new computer technology is outdated approximately every one to two years).

²⁸³ See, e.g., Ginsburg, *Creation and Commercial Value*, *supra* note 4, at 1923; Hunsucker, *supra* note 13, at 751 n.273.

²⁸⁴ This would already be part of a scheme based upon premodern copyright principles.

premises are: copyright assumes a quid pro quo in which the privilege of a limited monopoly is given in return for public access to the copyright work; copyright seeks to maintain a healthy stock of common knowledge from which all authors may draw; and copyright's goal is to promote learning and progress, not to create private monopolies in ideas or information.

Most *sui generis* models, however, grant the privilege of protection without a corresponding assurance of public access. Both the consuming public (including researchers) and potential competitors are restricted in the ways in which they may extract and use database information. Further, that information may never enter the public domain because of the possibility of perpetual protection. Such a strongly protective regime may act as an incentive for investment so that we, as a society, have more databases. A greater quantity of databases, however, may be of little social benefit if those databases are not publicly accessible.

Having said that copyright is the preferred form of protection, however, modern copyright does not provide the "Goldilocks just right" solution for databases. Copyright as interpreted in *Feist* underprotects databases; copyright as interpreted in *Waterlow* tends to overprotect databases, both in its term of protection and in the scope of the rights granted.

I have suggested in this paper that premodern copyright cases provide an alternative model for database protection. A *sui generis* scheme based upon the principles of those cases would provide protection for databases against illegitimate, primarily competing uses. However, such a scheme would encourage legitimate uses, including the creation of new products by competitors. I have also suggested that it may be desirable to make some additions and changes to such a model. These changes would seek to preserve public access in the face of contractual and technological means of denying such access. They would also seek to ensure that the grant of protection is not excessive.

The focus of a *sui generis* scheme based upon premodern copyright principles would be to protect databases against market failure. A considerable degree of public access would be preserved. Most existing models of *sui generis* protection, however, tend to be extreme reactions to a perceived underprotection of databases. As such, they have the potential to undermine the common good by granting exclusive monopolies in databases and the information they contain. Such models are illustrations of the danger of neglecting the past in designing the future.

