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OVERLAPPING FORMS OF PROTECTION FOR DATABASES

Jonathan Band, Jonathan Band PLLC, and Brandon Butler, University of Virginia

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A. Hypothetical

9.01 A sports league publishes a schedule of all the games for all teams for the entire season in a simple grid format with team names listed in rows and days and times as columns. An independent website aggregates the sports league's information with the schedules for other sports leagues, thereby enabling a fan to find the times and locations for all the games in all the different sports for any weekend plotted on a similar grid. The website includes a predicted point spread for each game, based on its analysis of the teams' records and other

factors it considers relevant. The website also features what it predicts will be the most exciting games of the weekend. A newspaper then publishes this list of featured games with the point spreads.

9.02 Which follow-on uses of the sports league schedule and the point spread would trigger liability for copyright infringement in the US? In the UK? Other than copyright and *sui generis protection*, what legal protections are available to the sports league or to others? Do any of these forms of protection require the compiler/author to design or administer her website in a particular way?

B. Conflicting Models of Database Protection

9.03 Different parts of databases attract different forms of protection. The selection and arrangement of the material contained in the database can receive copyright protection. The material itself, in contrast, may receive protection separate and apart from the selection and arrangement of material, depending on the nature of the material. Thus, if the database is a compilation of poems, there can be copyright protection for each individual poem, as well as copyright protection for the selection and arrangement of the poems. The copyright owner of the compilation may differ from the copyright owner of each poem, and the remaining term of protection may differ as well depending on when each work was created.

9.04 But what if the database is a compilation of facts rather than poems? Under most legal systems, an individual fact typically is not protected by copyright. Nonetheless, there are legal theories that may afford protection for even a relatively small set of facts when that set does not reflect original selection or arrangement sufficient to warrant copyright protection. In the EU, this protection is termed *sui generis* protection for databases.[1]

9.05 This chapter will focus on the overlap of IP protection in compilations of facts. It will look at copyright protection for the selection and arrangement of the facts contained in a

[1] *Sui generis* is the Latin term for 'unique'.

database, and it will look at the other theories that provide protection for the facts themselves. In the Information Age, there are countless circumstances under which one entity will seek to reuse information that has been published by another entity, and the IP practitioner must be able to advise his or her clients when such reuse is permissible.

9.06 The overlap of copyright and *sui generis* protection for databases can be viewed simply as an extension of the historical clash between two conflicting models of copyright protection for compilations. The first model advocates that databases and factual compilations receive protection per se, i.e., without any showing of creativity or original authorship. Proponents of this theory, better known as the 'sweat of the brow' or 'industrious collection' doctrine, justify their position by arguing that protection should be extended to databases as a reward for the hard work and investment required to compile the facts and information contained in the database. Such a reward provides compilers with the incentive to develop new databases. Under this doctrine, protection extends to the otherwise unprotected facts contained in the compilation.

9.07 The second model of intellectual property rejects the notion that databases without any originality or creativity should be protected. Instead, proponents of the second model would only extend copyright protection to the 'expression' contained in the database, which is limited to the original selection, coordination, or arrangement of facts in the database—but not the facts themselves. While acknowledging that this may seem unfair, advocates of the second model (such as Justice Sandra Day O'Connor in the *Feist* majority opinion[2]) argue that it is of the essence of copyright that it does not protect facts and ideas.

9.08 Public policy in the United States has always favoured the widest possible dissemination of facts, and a copyright law that restricted this free flow of information would be in tension with the First Amendment of the United States Constitution. Indeed, leaving facts

[2] See discussion of the *Feist* case at paras 9.39–9.42.

unprotected is meant to *encourage* the very 'free riding' decried by proponents of the 'sweat of the brow' theory; with respect to the public interest, a policy that bars copying facts creates wasteful duplication of effort. In the US, opponents of 'sweat of the brow' also point to the copyright clause in the constitution, which empowers Congress to protect 'writings', which courts have interpreted to mean only original creations, not discovered facts.

9.09 Prior to 1991, the extension of copyright protection for databases and other factual compilations remained an unsettled issue in US courts. Most courts refused to grant copyright protection for databases that did not contain any 'originality' in the selection or arrangement of facts,[3] and Congress adopted this view in the 1976 Copyright Act. There, Congress explicitly stated that a copyright in a compilation extended only to the original selection, coordination, and arrangement of material in the compilation.

9.10 Nonetheless, a minority of courts before and after the 1976 Act adopted the 'sweat of the brow' doctrine and protected databases that lacked any element of creativity or original expression.[4] In the 1991 case of *Feist Publications, Inc v Rural Telephone Service Co, Inc*, the US Supreme Court resolved the issue that had divided the lower courts and unanimously rejected the 'sweat of the brow' or 'industrious collection' doctrine.[5] Moreover, even though the Supreme Court recognized that the selection and arrangement of facts could create the requisite 'originality' for copyright protection, it emphasized that the copyright in the compilation would be 'thin', i.e., it would extend to the particular selection or arrangement of facts but not to the facts themselves.

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[3] See, eg, *Miller v Universal Studios, Inc*, 650 F 2d 1365 (5th Cir 1981); see also Patterson and Joyce, *Monopolizing the Law: The Scope of Copyright Protection for Law Reports and Statutory Compilations,* (1989) 36 UCLA L REV 719.

[4] See, eg, *Leon v Pacific Telephone and Telegraph Co*, 91 F 2d 484 (9th Cir 1937); *Jeweler's Circular Publishing Co v Keystone Publishing Co*, 281 F 83 (2nd Cir 1922).

[5] 499 US 340, 111 S Ct 1282, 113 L Ed 2d 358 (1991).

9.11 Thus, by rejecting the notion that databases could be copyrighted without demonstrating originality and emphasizing that facts and ideas are not copyrightable, the Supreme Court appeared to settle the longstanding clash between the two conflicting models of compilation protection. However, as will be discussed below, since the *Feist* decision, US courts have begun to apply a variety of non-copyright theories to protect the non-original contents of databases.

9.12 Soon after the issuance of the *Feist* decision, the European Commission began consideration of a Directive intended to harmonize the disparate intellectual property treatment of databases throughout the member states of the European Union. The United Kingdom, at the time a member of the EU, provided 'sweat of the brow' protection, while many countries on the Continent required expression as a condition for protection. The Nordic countries also provided protection for the contents of catalogues.

9.13 Ultimately, in March 1996, the Commission adopted the Database Directive, which included a two-tier approach. The top tier provided *Feist*-like protection—that is, copyright protection for original selection and arrangement of facts in the database. A second tier provided *sui generis* protection, prohibiting the unfair extraction of a substantial part of a database reflecting significant investment. A database could simultaneously receive both types of protection: copyright protection for the expression—the selection and arrangement of the data; and *sui generis* protection against the extraction of a qualitatively substantial part of the data itself. The *sui generis* protection lasts 15 years, while the copyright protection lasts for the life of the author plus 70 years. The Directive required implementation in the member states of the European Union by the beginning of 1998.

9.14 Because the European Union's Database Directive explicitly creates overlapping systems of protection, it will be discussed first. This chapter will review the two forms of protection provided by the EU Database Directive: copyright protection for the original

selection and arrangement of information, and *sui generis* protection against extraction of a substantial part of a database. The chapter will then discuss the case law that has arisen in the EU under the Directive.

9.15 Next, the chapter will examine the overlapping forms of protection for databases in the United States. The chapter will explain that since the *Feist* decision, copyright only protects the original selection and arrangement of facts in a database. Nonetheless, courts have applied this standard liberally to electronic databases, finding infringement in cases where, arguably, only facts were copied. Additionally, courts have extended copyright protection to 'created' facts. Although Congress has not enacted *sui generis* protection similar to that of Database Directive, creative litigants have succeeded in extending other legal theories such as misappropriation, trespass to chattels, the Computer Fraud and Abuse Act, and breach of contract to the material contained in databases. Accordingly, practitioners in both jurisdictions must be aware of the potential overlap of protection.

C. The European Union Database Directive

9.16 Although the Directive, adopted in 1996, required all member states to provide for legal protection of databases in their legislation in accordance with the standards set forth in the Directive by January 1998, Greece, Ireland, Luxembourg, and Portugal delayed in their implementation of it. On 30 July 1999, the European Commission initiated legal proceedings before the European Court of Justice against these four countries for failure to implement the Directive by the implementation date. All 27 member states of the European Union have now adopted the directive.

(1) Scope of the Directive

9.17 The Directive applies to the legal protection of 'databases in any form'.[6] The Directive defines a 'database' as 'a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means'.[7] This definition covers literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, facts, and data; a recording, an audiovisual, cinematographic, literary or musical work *as such* does not fall within the scope of the Directive. Moreover, the Directive specifies (in an interpretative recital) that 'as a rule, the compilation of several recordings of musical performances on a CD does not come within the scope of this Directive . . .'[8]

(2) Protection afforded to databases

9.18 The Directive provides two forms of protection for databases: copyright and database-specific protection referred to in the Directive as the 'sui generis right.'

(a) Copyright

9.19 The Directive recognizes copyright as the traditional means of database protection. Databases are protected by copyright if 'by reason of the selection or arrangement of their contents [they] constitute the author's own intellectual creation . . .'[9] The protection of such databases is governed by the generally applicable rules of copyright law (eg, the term of protection is life of the author plus 70 years). The author has the right to authorize or prohibit reproduction 'by any means and in any form, in whole or in part'[10], translation, adaptation,

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[6] Directive 96/9/EC of the European Parliament and the Council of 11 March 1996 on the legal protection of databases, OJ L 077('Database Directive'), Art 1(1).

[7] *Ibid*., at Art 1(2).

[8] *Ibid*., at Recital 19.

[9] *Ibid*., at Art 3(1).

[10] *Ibid*., at Art 5(a).

rearrangement or other alteration, distribution to the public, or any communication, display, or performance to the public.

9.20 Article 6 of the Directive provides for the following mandatory exceptions to copyright protection of databases (which may not be avoided by contract):

- a lawful user of the database may engage in any act necessary to access the database and use the contents of it in a normal way;
- users may make a private copy of the database, but only if the database is non-electronic;
- users may use the database for the sole purpose of illustration for teaching or scientific research, so long as the source is indicated and the extent of the use is no more than necessary for the non-commercial purpose;
- uses for public security or for purposes of an administrative or judicial procedure;
- the member states may also apply their traditional copyright exceptions so long as they observe the three-step test of the Berne Copyright Convention.

9.21 The basic challenge with applying copyright to databases in the EU is determining whether the selection and arrangement of data within the database is sufficiently expressive to 'constitute the author's own intellectual creation.' As will be discussed, there are far more cases in the United States that provide guidance on this very abstract issue.

(b) Sui generis *protection*

9.22 The Database Directive recognizes that in some instances, particularly in light of digital technology, the contents of the database could be copied without authorization and rearranged to produce a database with the same content that does not infringe copyright. To address this perceived gap in protection, the Directive also provides the database maker with a *sui generis* right 'to prevent the extraction and/or re-utilization of the whole or of a

substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.'[11] The Directive defines extraction 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 in any other form'.[12] Re-utilization is defined as 'any form of making available to the public of all or a substantial part of a database by the distribution of copies, by renting, by online or other forms of transmission'.[13]

9.23 The *sui generis* right is provided to a maker of a database who shows that there has been a substantial investment in the obtaining, verification, or presentation of the contents. It is irrelevant whether the database also qualifies for copyright protection, or whether the contents of the database are protected by copyright or are in the public domain. The selection or arrangement of the database need not be original. The term of protection is 15 years from the first of January of the year following the date of completion of the database. If the database is updated, the database is protected in the form subsequent to the update for a term of 15 years from the first of January following the year of completion of the update. The mandatory exceptions to the *sui generis* right run parallel to the mandatory exceptions to copyright protection of databases set out at paragraph 9.20.

9.24 The *sui generis* right is afforded to makers of databases who are nationals of a member state or who have their habitual residence in a territory of the EU. This includes companies and firms having their registered office, central administration, or principal place of business within the EU, as long as these companies or firms have a genuine link on an ongoing basis with the economy of a member state. Unlike copyright protection of databases, *sui generis* protection does not hinge on the place where the work is made public.

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[11] *Ibid*., at Art 7(1).

[12] *Ibid*., at Art 7(2)(a).

[13] *Ibid*., at Art 7(2)(b).

9.25 International treaties do not require members to afford 'national treatment' to owners of US databases with respect to the *sui generis* right (although they do for copyright). Instead, the Directive extends *sui generis* protection to non-EU entities on the basis of reciprocity. This means that, unlike the application of the principle of 'national treatment', the Directive will deny non-European companies the *sui generis* protection afforded databases unless their home countries offer comparable protection. Thus, if a court in Europe concludes that the United States does not offer protection comparable to the *sui generis* regime, a US company could enjoy copyright protection, but not *sui generis* protection, in any of its US databases in Europe.

(c) Text and Data Mining

9.26 In 2019, the EU adopted a Directive on Copyright in the Digital Single Market (CDSM). The CDSM Directive included a text and data mining exception from both the copyright and sui generis provisions of the Database Directive, as well as the reproduction right under the Directive on Copyright in the Information Society. Under Article 3 of the CDSM, Member States are required to enact exceptions that permit research organizations and cultural heritage institutions to make reproductions and extractions "in order to carry out, for the purposes of scientific research, text and data mining of works or other subject matter to which they have lawful access."[14] In other words, a research organization may create a database consisting of databases to which it has lawful access, for the purpose of the text and data mining of those databases. This search database must "be stored with an appropriate level of security" and may be retained for future scientific research, including the verification of research results. [15] Any contractual provision contrary to Article 3 is unenforceable.[16]

[14] CDSM Directive at art. 3(1).
[15] Id. at 3(2).
[16] Id. at 7(1).

9.27 Article 4 of the CDSM Directive requires Member States to adopt a text and data mining exception for entities other than research organizations and cultural heritage institutions, i.e., commercial enterprises. However, this exception applies only if the rightsholder has not expressly reserved the use of its works for text and data mining. Because the rightsholder can easily withhold consent to the use of its work, the exception provided under Article 4 may prove to be of little utility.

(3) Database protection in the EU member states

9.28 As noted, all EU member states have implemented the Database Directive in their national law. The differences that remain between the national laws could be characterized as minor. In some countries, copyright legislation dating back from before the Database Directive provided for a shorter term of protection for databases that fail to meet the criteria for copyright protection (eg, Denmark[17]). This form of protection would remain unaffected by the implementation of the directive.

(a) Litigation concerning the sui generis *right*

9.29 Adoption of the European Database Directive led to widespread litigation across Europe with inconsistent results.

9.30 For example, a Danish court ruled that a search engine's repeated scouring of newspapers' websites in order to compile lists of headlines and links violated Denmark's implementation of the Directive.[18] But in similar cases in Germany[19] and the Netherlands,[20] the

[17] Denmark Copyright Act, Art 71.

[18] *DNPA v Newsbooster.com* (Denmark 2002); but see *Home A/S v Ofir* (Denmark 2006) (holding 'deep linking' to real estate data by search portal does not violate Danish copyright law).

[19] See, eg, Cologne Higher Regional Court (Oberlandesgericht) 27 October 2000; Berlin District Court (Landgericht) 30 January 2001.

[20] *Publishers v Euroclip et al, Amsterdam District Court* (Arrondissementsrechtbank) 4 September 2002.

courts reached a different result. However, another court, in the Netherlands, prohibited a search engine from extracting information from a company's online telephone directory.[21]

9.31 Likewise, there was protracted litigation throughout the EU that hinged upon whether the company that developed the original database had invested sufficient resources to qualify for the protection. The Dutch courts generally withheld protection from databases that are a 'spin-off' of a company's main business, but courts in other jurisdictions found differently. This line of litigation culminated in a series of decisions by the European Court of Justice (ECJ) in 2004: *British Horseracing Board Ltd v William Hill Organization* and the three *Fixtures* cases.

9.32 The *British Horseracing* case involved a dispute between an official administrative agency for the British horseracing industry and a private publisher.[22] The British Horseracing Board (BHB), the governing authority for the British horseracing industry, creates and maintains official lists of which horses compete in official races and the results of those races, among other things. The process for recording and verifying this information (eg, accepting and verifying registration information from horse owners and trainers) is painstaking, and BHB argued that it had made 'substantial investment' such that its official data should constitute protected database contents under the *sui generis* right. They accused William Hill of violating that right by using BHB's data to publish their own listings of horse race participants.

9.33 The ECJ, however, ruled that investment in *creating* the data compiled in a database does not count as legally relevant investment. Rather, the publisher must make a substantial investment in collecting and organizing existing data in order to receive protection. BHB's database did not consist of 'existing, independent materials', the Court held, because '[t]he

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[21] *KPN v XSO* (Netherlands 2000).

[22] *The British Horseracing Board Ltd and Others v William Hill Organization Ltd* [2005] EWCA (Civ) 863.

nature of the information changes with the stamp of official approval'. While BHB may have engaged in 'collecting' and 'organizing' in the course of creating these official records, the *sui generis* right is meant to protect collection and organization of pre-existing facts and works. The *Fixtures* cases were decided along similar lines.[23]

9.34 The decisions imply that many databases that are by-products of an organization's own activities, such as airline schedules, stock market data, member directories, box scores, real estate listings, and results of scientific experiments, cannot receive *sui generis* protection under the Database Directive, unless some substantial *additional* effort is made to convert the created data into a database.[24]

(b) Reevaluation of the sui generis *right*

9.35 In response to this wave of litigation and the resulting uncertainty, the British Royal Society examined the Directive's impact on science. An April 2003 report, after citing problems encountered by scientists in England, concluded that the Database Directive 'is

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[23] *Fixtures Marketing Ltd v Oy Veikkaus AB* [2004] ECR I-10365; *Fixtures Marketing Ltd v Svenska Spel AB* [2004 ECR] I-10497; *Fixtures Marketing Ltd v OPAP* [2004] ECR I-10549.

[24] A case in the Netherlands, *De Roode Roos v De Rooij*, followed this rule in denying *sui generis* protection to a database of nutritional supplements. The plaintiff sued the defendant, a competitor, for reproducing the plaintiff's product photos in the defendant's catalogue. Because creating a catalogue of products is an ordinary part of the plaintiff's business, the court held that there was not substantial investment in creation of the database, and hence no *sui generis* protection for the photos as elements of the database. There was no protection for the photos on their own because the court held they were standard product photos with insufficient creativity to warrant copyright protection. However, the court did find that the defendant had engaged in unfair competition by copying the plaintiff's catalogue photos. The plaintiff also succeeded on its theory of so-called 'geschriftenbescherming,' a provision in the Dutch copyright act that forbids the literal copying even of non-original works of authorship.

inappropriate for scientific data and we recommend that it be repealed or substantially amended . . .'[25]

9.36 In 2006, after public consultation, the European Commission published an evaluation report on the Directive. The report concluded that it was not possible to show that the *sui generis* right had 'a proven impact on the production of databases'. According to the report, the main flaws of the right were as follows:

- The right was not well defined.
- The right could extend intellectual property protection to the data itself.
- The economic impact of the right was unproven.

After considering whether to repeal or amend the *sui generis* right, the Commission decided to leave the *sui generis* right unchanged. It concluded that the costs of repealing the Directive outweighed the benefits of repealing it. Thus, the complete Database Directive remains in effect. Notwithstanding the acknowledged problems with the *sui generis* right, the European Union continues to export it beyond the 15 member states extant at the time of the Directive's adoption in 1996—to the 12 countries that have joined the Union since 1996, and to other countries, such as Turkey and Iceland, that may join the Union in the future.

9.37 In 2018, the European Commission published a second evaluation of the Database Directive. The evaluation focused on whether the findings of the EC's 2006 evaluation were still valid, examining again the impact of the *sui generis* right, in particular. Its conclusions were similar to the previous report: the *sui generis* right "continues to have no proven impact on the overall production of databases in Europe, nor on the competitiveness of the EU

[25] The Royal Society, *Keeping Science Open: The Effects of Intellectual Property Policy on the Conduct of Science* (2003) 27, available at <http://royalsociety.org/Keeping-science-open-the-effects-of-intellectual-property-policy-on-the-conduct-of-science/> last visited 27 February 2012.

database industry."[26] The evaluation also concludes that the effects of the *sui generis* right, both positive and negative, are so modest that a process of reforming the right would be "largely disproportionate to its overall policy potential or the limited range of problems it currently generates for stakeholders."[27] Nevertheless, the EC subsequently announced in its 2021 Work Programme and its Action Plan on Intellectual Property that it intended to again revisit the Database Directive, "to facilitate the sharing of and trading in of [sic] machine generated data and data generated in the context of rolling out the Internet of Things (IoT)."[28]

9.38 South Korea and Mexico have both adopted a two-tier database protection scheme inspired by the EU, granting a shorter term of *sui generis* protection for the contents of databases as well as broader protection for original elements of selection arrangement. Additionally, the EU has required countries to implement the provisions of the Directive, including the *sui generis* right, as a condition of free trade agreements.

(c) Application of the sui generis *right*

9.39 There are two main challenges to applying the *sui generis* right. First, even after the ECJ's decision in the *BHB* and *Fixtures* cases, a follow-on user can have difficulty determining whether a database is a 'spin-off' of an existing business, and thus not subject to *sui generis* protection, or instead is a database that reflects substantial investment in the collection and organization of the data.

9.40 Second, the *sui generis* right protects against the extraction of a substantial part of a database, evaluated quantitatively or qualitatively. A follow-on user has no clear means of determining what a qualitatively substantial part of a database is. Thus, extraction of even a small amount of data from a database could result in litigation.

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[26] Executive Summary of the Evaluation of Directive 96/9/EC on the legal protection of databases, SWD (2018), https://ec.europa.eu/digital-single-market/en/news/staff-working-document-and-executive-summary-evaluation-directive-969ec-legal-protection.

[27] *Id.*

[28] European Commission, Protection of databases (Mar. 16, 2021), https://digital-strategy.ec.europa.eu/en/policies/protection-databases, last visited April 2, 2021.

9.41 A practitioner in the EU must also be aware of the existence of additional forms of overlap that may exist. The publisher could distribute the database subject to a licence that might restrict how the contents of the database may be used. Some European jurisdictions, including Spain, have unfair competition doctrines that might limit follow-on uses of a database's contents. Finally, some jurisdictions, including the Netherlands, have copyright doctrines that prohibit the literal copying of non-original works.[29]

D. The United States

(1) Copyright protection

(a) Feist v Rural Telephone

9.42 As was discussed briefly, United States courts were divided prior to 1991 concerning the application of copyright law to databases. The majority of courts provided protection only to the expression in a compilation: the original selection, coordination, and arrangement of the facts and other material in the compilation. A minority of courts, however, interpreted copyright law as preventing the copying of facts in a compilation in which there were no original elements in selection or arrangement. These courts thought it was unfair and unwise to afford no protection to the efforts of people who assembled plain vanilla directories. This 'sweat of the brow' or industrious collection approach was largely a stopgap measure; courts typically applied it to compilations which lacked any expression and which were 'slavishly' copied in their entirety.

9.43 Courts were less willing to apply the 'sweat of the brow' doctrine after Congress overhauled the Copyright Act in 1976. In the 1976 Act, Congress defined a compilation as 'a work formed by the collection and assembling of pre-existing materials or of data that are

[29] Netherlands Copyright Act, art 10.

selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship'.[30] Section 103 of the Copyright Act further provided that,

(a) The subject matter of copyright as specified by section 102 includes compilations and derivative works, but protection for a work employing preexisting material in which copyright subsists does not extend to any part of the work in which such material has been used unlawfully.

(b) The copyright in a compilation or derivative work extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material. The copyright in such work is independent of, and does not affect or enlarge the scope, duration, ownership, or subsistence of, any copyright protection in the preexisting material.

Courts soon recognized that the 'sweat of the brow' doctrine extended beyond the bounds of the new statute. By the early 1980s, the 'sweat of the brow' doctrine was in full retreat. The *Feist* decision in 1991 was just the final blow. In a sweeping opinion written by Justice Sandra Day O'Connor, the unanimous Supreme Court emphatically rejected the 'sweat of the brow' doctrine, stating that it 'flouted basic copyright principles'.[31] The 'sweat of the brow' doctrine, the Supreme Court explained, 'eschewed the most fundamental axiom of copyright law—that no one may copyright facts or ideas'.[32] With respect to compilations, the Court found

[30] 17 USC §101. The definition also explained that 'the term "compilation" includes collective works'. A collective work was defined as 'a work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole'. *Ibid*.

[31] *Feist v Rural Telephone,* 499 US 340, 354 (1991).

[32] *Ibid*., at 353.

that ‘only the compiler’s selection and arrangement may be protected; the raw facts may be copied at will’.[33]

9.44 In this case, that meant that Feist, a publisher of telephone directories, could copy the factual listings in Rural Telephone’s white pages directory wholesale. The Court observed that,

> [i]t may seem unfair that much of the fruit of the compiler’s labor may be used by others without compensation . . . [H]owever, this is not ‘some unforeseen byproduct of a statutory scheme.’ . . . It is, rather, ‘the essence of copyright,’ . . . and a constitutional requirement. The primary objective of copyright is not to reward the labor of authors, but ‘[t]o promote the Progress of Science and useful Arts.’[34]

The Court added that,

> Throughout history, copyright law has ‘recognize[d] a greater need to disseminate factual works than works of fiction or fantasy.’ But ‘sweat of the brow’ courts took a contrary view; they handed out proprietary interests in facts and declared that authors are absolutely precluded from saving time and effort by relying upon the facts contained in prior works. In truth, ‘[i]t is just such wasted effort that the proscription against the copyright of ideas and facts . . . [is] designed to prevent.’[35]

Significantly, the *Feist* Court based its ruling not only on the Copyright Act, but also on the Intellectual Property Clause of the US Constitution. Article I, Section 8, cl. 8 authorizes Congress ‘To promote the Progress of Science and useful Arts, by securing for limited Times to Authors . . . the exclusive Right to their Respective Writings . . .’ From this clause, the Court inferred that ‘[o]riginality is a constitutional requirement’ for copyright protection, and held that facts by definition are not original.[36] They are discovered rather than created.[37]

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[33] *Ibid*., at 350.

[34] *Ibid*., at 349.

[35] *Ibid*., at 354 (citation omitted).

[36] *Ibid*., at 346.

9.45 Although the selection and arrangement of facts in a compilation could constitute original expression, the selection and arrangement of Rural's white pages did not rise to this level. Rural's 'garden-variety white pages' were 'devoid of even the slightest trace of creativity'.[38] Rural's selection of listings 'could not be more obvious' and the alphabetical arrangement was 'an age-old practice, firmly rooted in tradition and so commonplace that it has come to be expected as a matter of course'.[39]

(b) Copyright cases since Feist

9.46 In the 30 years after *Feist*, many US courts have found that the defendant infringed the copyright in a database.[40] As the court observed in *Key Publications, Inc v Chinatown Today*[41] although copyright protection in a factual compilation is thin, 'it is [not] anorexic'.

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[37] *Ibid*., at 347.

[38] *Ibid*., at 362.

[39] *Ibid*., at 363.

[40] *American Dental Ass'n v Delta Dental Plans Ass'n*, 126 F 3d 977 (7th Cir 1997) (creating a taxonomy of dental procedures involves creativity and selection); *Practice Management Info Corp v American Medical Ass'n*, 121 F 3d 516 (9th Cir 1997), cert. denied, 522 US 933, *amended*, 133 F 3d 1140 (9th Cir 1998) (list of medical procedures copyrightable); *Nihon Keizai Shimbun v Compline Business Data*, 49 USPQ2d 1516 (2nd Cir 1999) (infringement where the defendant copied twenty abstracts from plaintiff's database of 900,000 articles); *US Payphone, Inc v Executives Unlimited of Durham, Inc*, 18 USPQ2d (BNA) 2049 (4th Cir 1991)(infringement where defendant copied several pages of telephone tariff information compiled and organized by plaintiff); *Montgomery County Association of Realtors v Realty Photo Master*, 878 F Supp 804 (D Md 1995), aff'd, 91 F 3d 132 (4th Cir 1996) (infringement where defendant copied listings from real estate 'multiple listing service' to accompany its real estate photographs); *Metropolitan Dade County v Florida Power & Light Co*, 45 USPQ2d (BNA) 1667 (Fla Cir Ct 1998) (copyright exists in the selection and arrangement in a database of aerial photographs, the utilities records of facilities, and the county's geographical records); *Berkla v Corel*, 66 F Supp. 2d 1129 (ED Ca 1999) (copyright in a database of plant drawings); see also *Lipton v Nature Co*, 71 F 3d 464 (2nd Cir 1995); *Nester's Map & Guide Corp v Hagstrom Map Co*, 796 F Supp 729 (EDNY 1992); *Budish v Gordon*, 784 F Supp 1320 (ND Ohio 1992); *Oasis Publ'g Co v West Publ'g Co*, 924 F Supp

9.47 At the same time, courts in some cases have refused to find infringement when defendants copied unprotectable elements from a database. In *Matthew Bender & Co v West Publ'g Co*[42] for example, the Second Circuit held that Matthew Bender & Co were free to indicate West pagination in its law reporters as the pagination reflected no creativity by West.[43] Courts also have refused to find infringement when the defendant used the information contained in a database.[44] Finally, courts refused to impose liability when they found that the defendant's database was not substantially similar to the plaintiff's database.[45]

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918 (D Minn 1996); *Castle Rock Entertainment v Carol Publ'g Group, Inc*, 955 F Supp 260 (SDNY 1997), aff'd, 150 F 3d 132 (2nd Cir 1998); *Medical-Legal Consulting Inst, Inc v McHugh*, 1998 US Dist LEXIS 8623 (ED Pa 1998).

[41] 945 F 2d 509, 514 (2nd Cir 1991).

[42] 158 F 3d 674 (2nd Cir 1998).

[43] See also *Warren Publishing v Microdos*, 115 F 3d 1509 (11th Cir), cert. denied, 118 S Ct 397 (1997) (selection and arrangement of facts in Cable Factbook not expressive); *Transwestern v Multimedia Marketing Association*, 133 F 3d 773 (10th Cir 1998) (advertisements copied from Transwestern's Yellow Page Directory reflected no creativity by Transwestern; copy for the advertisments came from the advertisers, and Transwestern provided only the most basic graphic design); *Skinder-Strauss Associates v Massachusetts Continuing Legal Education, Inc*, 914 F Supp 665 (D Ma 1995) (allowing the extraction of information from copyrightable database); *Ticketmaster Corp v Tickets.com*, *Inc*, 54 USPQ 2s 1344 (CD Cal 2000) (allowing reproduction of concert information extracted from publicly available web pages).

[44] See *Adelman v Christy*, 2000 US Dist LEXIS 4516 (Az, 29 March 2000) (copyright in a bibliography was not infringed by the creation of a text that relied on sources cited in the bibliography); *O'Well Novelty v Offenbacher*, 1998 US Dist 22199 (Md, 22 September 1998) (copyright in a gift catalogue was not infringed by the sale of items pictured in the catalogue).

[45] For example, in *EPM Communications v Notara*, 56 USPQ 2d 1144 (SDNY 2000), the court found an electronic database was not substantially similar to a printed compilation when: the electronic database did not have the same arrangement as the print compilation; 60% of the electronic database's entries were different from those of the print compilation; and the electronic database copied 55% of the print compilation's entries.

(c) Electronic Databases

9.48 Some have suggested that comprehensive electronic databases may have difficulty meeting the Copyright Act's selection, coordination, or arrangement standard. Because the databases are digital, the data are not 'arranged' in a traditional sense; instead, the data are 'arranged' by the user employing a search engine. Moreover, the compilers make no selection because the databases are comprehensive.[46]

9.49 However, as the court in *Positive Software Solutions, Inc v New Century Mortgage Corporation*[47] found, 'a database is not simply a show box into which all the information is thrown. It is, rather, a very structured hierarchy of information'.

9.50 The court in *Corsearch v Thomson & Thomson*[48] reached a similar conclusion. In *Corsearch,* decided the year after *Feist*, the court considered a database of trademark information Thomson & Thomson had assembled from all 50 states. Thomson & Thomson developed a set of fields, and then input the information for each trademark by field. Thomson & Thomson had to correct and standardize the information it received. It also added its own information to each file, such as a code indicating whether the trademark consisted of a word, a design, or a word with a design. The court found that Thomson & Thomson 'offered sufficient evidence of its selection, coordination, enhancement and programming of

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See also *Schoolhouse, Inc. v Anderson*, 275 F 3d 726, 731 (8th Cir 2001) ('[a]lthough there are some objective similarities in the ideas expressed by Schoolhouse's table and Anderson's website, the two works express their ideas so differently that ordinary, reasonable minds could not find them substantially similar').

[46] In *EPM Communications,* for example, the court noted that the Notara database on its own did not have any arrangement at all, and could have the same arrangement as the EPM sourcebook only if the user directed a computer to rearrange the material into the copyright holder's arrangement.

[47] 259 F Supp 2d 531 (ND Tex 2003).

[48] 792 F Supp 305 (SDNY 1992).

the state trademark data, as well as other contributions that establish the originality and requisite creativity, and thus copyrightability, of the . . . database'.[49]

9.51 The point this case makes is that information in electronic databases typically is not floating around independently waiting to be identified by a search engine. Rather, the author arranges the data in files consisting of linked fields. For a telephone directory, these fields are trivial—name, address, and phone number. But most commercially valuable databases contain far more fields. The selection of those fields, and the arrangement of bits of data within them, represent at least a minimal level of creativity. To be sure, many of these fields are functionally dictated, yet some reflect the compiler's choice and judgement. Copyright prevents the wholesale copying of such a database. Indeed, copyright prohibits the copying of even a few complete files with linked fields of data, to the extent that the selection of the fields reflects creativity. Therefore, copyright, even after *Feist*, gives database publishers significant protection.

9.52 The Digital Millennium Copyright Act provides additional protection to the publishers of electronic databases. For databases distributed in digital form, technological measures that prevent unauthorized access, reproduction, and distribution are becoming more prevalent and powerful. These methods include encryption, serial copy controls, and watermarking. In 1998, Congress concluded that technological measures were rapidly becoming the front line in the fight against copyright infringement. Accordingly, Congress enacted the DMCA, which prohibits the circumvention of technological measures controlling access to copyrighted works, and bans the manufacture of circumvention devices.[50] The DMCA's prohibition on circumvention applies to copyrightable databases, which includes the vast majority of databases. Further, the ban on circumvention devices helps the few non-

[49] *Ibid*., at 322.

[50] 17 USC §1201.

copyrightable databases because it eliminates devices that would circumvent technological protections applied to such databases.

9.53 In the United States, there is no statutory exception for the text and data mining of databases similar to that provided by Articles 3 and 4 of the EU CDSM Directive. However, several courts have held that the fair use right permits the copying of compilations and other copyrighted works into search databases. [51]

(d) Created facts

9.54 The Supreme Court in *Feist* declared that facts are unprotectable because they are discovered rather than created. However, several courts have recognized that certain 'facts' are 'created' by the compiler and thus can receive copyright protection. In *CDN Inc v Kenneth A. Kapes* [52] the Ninth Circuit held that the prices listed in a wholesale price guide for collectible coins contained copyrightable subject-matter. The issue before the court was whether the individual prices, rather than the collection of prices in the guide, were copyrightable.

9.55 The court looked to the manner in which the prices were determined; CDN used considerable expertise and judgement when determining how a multitude of factors would affect a coin's estimated wholesale price. Kapes argued that a given estimated price was an expression of the idea of the coin's price and that the two merged. The court rejected Kapes' merger argument, holding that the expression of CDN's idea of the coins' prices would be protectable and was separate from the idea of a wholesale price guide.[53]

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[51] *Authors Guild v. HathiTrust,* 755 F.3d 87 (2d Cir. 2014); *Authors Guild v. Google, Inc.,* 804 F.3d 202 (2d Cir. 2015); *A.V. ex rel. Vanderhye v. iParadigms, LLC*, 562 F.3d 630, 640 (4th Cir. 2009); *Perfect 10 v. Amazon.com, Inc.*, 508 F.3d 1146, 1165 (9th Cir. 2007); and *Kelly v. Arriba Soft Corp.*, 336 F.3d 811, 818 (9th Cir. 2003).

[52] 197 F 3d 1256 (9th Cir 1999).

[53] See *CCC Information Serv Inc v Maclean Hunter*, 44 F 3d 61 (2nd Cir 1994) (copyright protection afforded to projections of expected values of average used cars for the upcoming six weeks). See also *Health Grades, Inc v*

(2) Overlap with other forms of protection available under US law

9.56 After the EU's adoption of the Database Directive in 1996, the US Congress began consideration of *sui generis* protection for databases.[54] Database publishers argued that the Supreme Court's decision in *Feist* significantly diminished publishers' incentive to invest in the compilation of information. They argued that post-*Feist,* copyright was particularly ineffective with respect to large comprehensive online databases that are used by means of a search engine. The compiler has exercised no selection because the databases are comprehensive. Further, arrangement only occurs when the user conducts a search. In the absence of selection and arrangement, copyright protection is not available.

9.57 The proponents further argued that adoption of the Database Directive necessitated enactments of database legislation in the United States. The Database Directive's *sui generis* protection is available only on a reciprocity basis. This meant that a non-EU publisher can receive the heightened level of protection only if the publisher's country of origin afforded an equivalent level of protection. In other words, if the US did not enact database legislation on

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Robert Wood Johnson University Hospital, No. 06-02351 (D Col 19 June 2009) (concluding that Health Grades' ratings and awards 'are original compilations of fact subject to copyright protection, rather than "discovered" facts outside the protection of copyright'). In contrast, the Second Circuit in *New York Mercantile Exchange v InterContinental Exchange*, 497 F 3d 109 (2nd Cir 2007), found the settlement price for a futures contract that was established by a committee of the New York Mercantile Exchange was not protectable by copyright. In that case, the US Department of Justice filed an amicus brief that argued that since copyright does not protect short phrases, no number could ever be protected, no matter how creative. Taken to its logical extreme, this means that index numbers such as the Dow Jones Industrial Average or the S&P 500 index are not protectable under copyright. See also *Southco v Kanebridge*, 390 F 3d 276 (3rd Cir 2004) (en banc), where the court found that the numbers a manufacturer assigned to parts pursuant to the manufacturer's numbering system for parts it manufactured were not original works entitled to copyright protection.

[54] See Jonathan Band and Makato Kono, *The Database Protection Debate in the 106th Congress*, (2001) 62 OHIO ST L J 869, for a detailed discussion of the legislative deliberation.

par with the Database Directive, then US publishers could not receive this added protection in Europe. European publishers, in contrast, would receive the protection against US publishers, thereby placing US publishers at a competitive disadvantage.

9.58 This legislative effort was opposed by value added publishers and the science, education, and library communities. After an eight-year battle, Congress did not enact *sui generis* protection. In part, this outcome can be attributed to the successful use of other legal theories, as will be discussed, to achieve protection for the facts contained in a database. Practitioners in the United States must be aware of these other theories that have a similar effect to *sui generis* protection.[55]

9.59 An important issue in cases applying other theories based on state law is whether the theories are 'pre-empted' by the federal Copyright Act.[56] In other words, these cases explore whether the federal copyright system permits overlapping state law that protects databases. As a general matter, Section 301(a) of the Copyright Act pre-empts state laws that apply to the same subject-matter as copyright and that provide rights equivalent to the exclusive rights of copyright. This would appear to preclude state laws that prohibit the copying of the contents of databases.

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[55] In addition to the IP (or quasi-IP) theories discussed below, database publishers have employed licence terms to prohibit the copying of facts from databases. See *ProCD, Inc v Zeidenberg*, 86 F 3d 1447 (7th Cir 1996); *Information Handling Servs, Inc v LRP Publications, Inc,* No. 00-1859, 2000 US Dist. LEXIS 14531 (ED Pa 2000); *Lipscher v LRP Publications*, 266 F 3d 1305 (11th Cir. 2001); *Matthew Bender & Co v Jurisline.com, LLC,* 91 F Supp 2d 677 (SDNY 2000); *Register.com v Verio*, 126 F Supp 2d 238 (SDNY 2000), aff'd, 356 F 3d 393 (2nd Cir 2004); *Ticketmaster Corp v Tickets.com*, CV99-7654, 2003 US Dist. LEXIS 6483, *9 (CD Cal 7 March 2003).

[56] Each of the fifty states in the United States has its own legislative and judicial system that can fashion its own laws.

9.60 However, courts have held that if the state law violation requires proof of an 'extra element' beyond the actions necessary for copyright infringement (eg, reproduction or distribution to the public), then the federal copyright law does not pre-empt the state law. Courts have found that because breach of contract claims, hot-news misappropriation, and trespass to chattels meet this extra-element test, the Copyright Act does not pre-empt them.

(a) Hot news misappropriation

9.61 The United States Supreme Court recognized the common law doctrine of misappropriation in *International News Service v Associated Press*.[57] The definitive modern formulation of the *INS* misappropriation doctrine was set forth by the US Court of Appeals for the Second Circuit in *National Basketball Association v Motorola, Inc*.[58] The Second Circuit identified five elements in a misappropriation claim:

- the plaintiff generates or collects the information at some cost or expense;
- the value of the information is highly time sensitive;
- the defendant's use of the information constitutes free-riding on the plaintiff's costly efforts to generate or collect it;
- the defendant's use of the information is in direct competition with a product or service offered by the plaintiff; and
- the ability of others 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.

Courts have applied the five *NBA* elements to find misappropriation in several cases.[59]

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[57] 248 US 215 (1918).

[58] 105 F 2d 841 (2nd Cir 1997).

[59] *Lynch, Jones & Ryan, Inc, v Standard & Poor's*, 47 USPQ 2d (BNA) 1759 (NY Sup. Ct. 1998) (gaining improper access to index of retail sales and disclosing it during a 35 minute embargo can constitute hot news

9.62 However, in *Barclays Capital v Theflyonthewall.com*[60] the Second Circuit found that a website's publication of trading recommendations provided by brokerage firms to their customers before the opening of financial markets did not constitute 'free-riding' sufficient to trigger misappropriation liability.[61] The court stressed that the website was simply reporting on facts created by the brokerage firms (e.g., that Morgan Stanley recommended that its customers sell their shares of IBM), rather than redistributing as its own facts that the brokerage firm had gathered.

9.63 The court also emphasized that gathering and disseminating information was not a significant part of the brokerage firms' business that was disrupted by the website's actions. Rather, the brokerage firms issued the recommendations in an effort to stimulate trades by their customers, for which the firms received commissions. The Second Circuit's analysis bears striking parallels to the reasoning of the European Court of Justice described above that the Database Directive's *sui generis* protection does not extend to databases that are 'spin-offs' of a firm's primary business.

(b) Trespass to chattels

9.64 There is also a cause of action under the common law of various states for trespass to chattels, which refers to an act of intentional interference with the possessory rights of another's personal property. To prevail, the plaintiff must show (1) that the defendant intentionally interfered without authorization with the plaintiff's possessory rights in personal

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misappropriation); *Pollstar v Gigmania, Ltd,* 170 F Supp 2d 974 (ED Cal 2000) (concert information updated daily could constitute hot news for misappropriation purposes); *Morris Communications Corp v PGA Tour, Inc*, 117 F Supp 2d 1322 (MD Fla 2000) (real time scores at PGA tournament can constitute hot news); and *Associated Press v All Headline News Corp* 608 F Supp 2d 454 (SDNY 2009).

[60] 650 F 3d 876 (2nd Cir 2011).

[61] Second Circuit Court of Appeals, no.10-1372-cv (decided June 20, 2011). The court stated that the five *NBA* elements were dicta and not strict legal requirements.

property, and that (2) the unauthorized use by the defendant resulted in damage to the plaintiff. This ancient English common law doctrine was first applied to cyberspace in spam cases, where internet service providers were searching for a legal mechanism to stop marketers from flooding their systems with literally millions of unsolicited commercial emails.[62] More recently, publishers of publicly accessible online databases have employed trespass to chattel claims against competitors who accessed the databases and extracted facts.

9.65 The leading case is *eBay v Bidder's Edge*.[63] BE was an auction aggregator that combined the auction listings from numerous online auction sites, including eBay, so that a user could go to one site to see what was available on all sites, rather than making separate visits to each auction site. To obtain the auction listings from eBay and the other auction sites, BE used software web crawlers that made multiple queries of the eBay auction database—sometimes as many as 100,000 times per day.

9.66 BE argued that it could not trespass upon eBay's site because the eBay site is publicly accessible. The court ruled that eBay granted only conditional access to its site, and that BE grossly exceeded those conditions by making repeated queries. Additionally, BE ignored eBay's specific requests that it stop its web crawling.

9.67 The court next considered whether BE's use of the eBay website caused damage. eBay claimed that BE's queries consumed valuable bandwidth and server capacity, necessarily compromising eBay's ability to use that capacity for its own purposes. BE responded that its searches represented a negligible load on eBay's system, using less than 2 per cent of eBay's capacity. The court ruled that '[e]ven if, as BE argues, its searches use only a small amount of eBay's computer system capacity, BE has nonetheless deprived eBay

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[62] See, eg, *American Online v National Health CareDiscount, Inc*, 174 F Supp. 2d 890 (ND Iowa 2001).

[63] 100 F Supp 2d 1058 (ND Ca 2000).

of the ability to use that portion of its personal property for its own purposes.' The court held that the mere interference with a possessory interest is sufficient to establish damage.

9.68 The trespass to chattels cause of action as articulated by the *Bidder's Edge* court grants website operators virtually unlimited control over the information that appears on their websites. Indeed, this control vastly exceeds what the 'sweat of the brow' doctrine granted publishers before the *Feist* decision. Under 'sweat of the brow' the publisher had to expend resources in gathering information, and the defendant had to engage in wholesale copying of the compilation. Under the *Bidder's Edge* trespass to chattels approach, retrieving even one piece of information from a website could be unlawful because it involves use of the website operator's computer.[64] However, other courts have found that mere possessory interference is not sufficient harm for trespass to chattels liability. Rather, a showing of physical harm to the chattel or some obstruction of its basic function was necessary.[65]

(c) Computer Fraud and Abuse Act

9.69 The Computer Fraud and Abuse Act (CFAA) is the primary vehicle the federal government uses to prosecute computer crime. In 1996, Congress amended the CFAA to impose liability on whomever "intentionally accesses a computer without authorization or exceeds authorized access, and thereby obtains information from any protected computer involved in interstate commerce."[66] A protected computer is defined as a computer "which is

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[64] Several courts have followed this approach. See *Register.com v Verio*, 356 F 3d 393 (2nd Cir 2004) (Verio's extraction of facts from Register.com's WHOIS database constituted a trespass to chattels); *Oyster Software v Forms Processing,* 2001 US Dist LEXIS 22520 (ND Cal 2001) (use of the plaintiff's computer was sufficient to establish damage and that no showing of physical harm or substantial interference was necessary).

[65] *Ticketmaster Corp v Tickets.com, Inc*, 2000 WL 1887522 (CD Cal 10 August 2000). See also *Intel Corp v Hamidi*, 30 Cal 4th 1342 (2003) (trespass is actionable only if there is actual or threatened injury to the personal property or to the possessor's legally protected interest in the property).

[66] 18 USC § 1030(a)(2)(C).

used in interstate or foreign commerce or communication."[67] Thus, any computer that is connected to the internet is a "protected computer."

9.70 Although primarily a criminal statute, the CFAA permits a private cause of action to be brought by a person who suffers a loss of $5000 by reason of a violation of this section.[68] Courts found CFAA violations based upon the extraction of information from online databases.[69] There is no question that CFAA liability would result if a person, without authorization, hacked into a computer and extracted information. U.S. courts had more difficulty resolving whether a person violates the CFAA if she has the authority to access the computer but then uses that access in a manner that exceeds her authorization, e.g., employs software to harvest information from a website in violation of the website's terms of service.[70] A split in the U.S. courts of appeal placed this issue in the Supreme Court in *Van Buren v. United States*. In *Van Buren*, a Georgia police sergeant used his authorized username and password to obtain information from a law enforcement database and sell it to an FBI confidential informant for $6,000. On June 3, 2021, the Supreme Court held that an individual "exceeds authorized access" when he accesses a computer with authorization but then obtains information located in particular areas of the computer—such as files, folders, or databases— that are off-limits to him. However, he does not "exceed[] authorized access" if he uses, for unauthorized purposes, a database he is otherwise entitled to use. To impose liability merely for using a database in a manner or circumstances not permitted by the database creator, "would attach criminal penalties to a breathtaking amount of commonplace computer activity."[71]]

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[67] 18 USC § 1030(e)(2)(B).

[68] § 1030(g).

[69] See, e.g., *EF Cultural Travel v. Explorica* 274 F.3d 577 (1st Cir. 2001).

[70] Compare *United States v. Nosal*, 676 F.3d 854 (9th Cir. 2012) with *United States v. Rodriguez*, 628 F.3d 1258 (11th Cir. 2010).

[71] *Van Buren v. United States*, 593 U.S. __ (2021) (slip op. at 17).

E. International Agreements

9.71 The overlap between copyright protection for the selection and arrangement of the facts in a database and some other form of protection for the facts themselves does not exist in international law. However, the World Intellectual Property Organization (WIPO) did consider adoption of a database treaty, which would have created an overlap by extending protection to the contents of databases. As will be discussed, no such treaty ultimately was adopted.

(1) Copyright protection: the TRIPs Agreement and the WIPO Copyright Treaty

9.72 Article 10(1) of the 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) extends copyright protection to the original expression in compilations:

> compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright protection subsiding in the data or material itself.

9.73 Two years later, the World Intellectual Property Organization (WIPO) included similar language in Article 5 of its 1996 Copyright Treaty:

> Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or material itself and is without prejudice to any copyright subsiding in the data or material contained in the compilation.

Most countries comply with these treaties by extending copyright protection to the selection and arrangement of material in compilations.

(2) *Sui generis* protection: The Database Treaty

9.74 As soon as the EU adopted the Database Directive in March 1996, it placed *sui generis* database protection on WIPO's agenda. Bruce Lehman, Commissioner of the US Patent and Trademark Office, endorsed the concept of *sui generis* protection even though it was not part of US law. With Commissioner Lehman's endorsement of a *sui generis* database proposal, the notion of a stand-alone database treaty gathered momentum, and in September of 1996, Jukka Liedes, the Chairman of the WIPO Committee of Experts, formally proposed a database treaty as one of three treaties to be considered at the WIPO Diplomatic Conference scheduled to occur in December 1996. This provision generated no controversy with respect to the Copyright Treaty.

9.75 As the December Diplomatic Conference approached, numerous parties began to raise serious questions about the Database Treaty. Developing countries objected to the insertion of this new topic so late in the consultative process. They also questioned the need for a new form of intellectual property protection. Similarly, the scientific community in the United States reacted with alarm to the proposed treaty, arguing that it would stifle research. The science agencies within the US government (eg, the Environmental Protection Agency and the National Oceanographic and Atmospheric Administration) took the lead in persuading the National Economic Council within the White House to oppose adoption of a database treaty.

9.76 Thus, Commissioner Lehman arrived in Geneva in early December 1996 with instructions to stop the very database treaty that he had helped set in motion. In the face of the opposition from the developing countries and the United States, the WIPO governing body decided at the outset of the Diplomatic Conference to defer further consideration of the database treaty. The Diplomatic Conference, accordingly, adopted two other intellectual property treaties—one dealing with copyright and the other dealing with performance rights—but not the database treaty. (By contrast, the Copyright Treaty's provision for *copyright* protection for databases was adopted without debate.) A treaty for the protection of

databases remained on the formal agenda of the WIPO Standing Committee on Copyrights and Related Rights for a decade, but no additional action was ever taken.

F. Summary

9.75

- Different elements of a database receive different intellectual property protection. The selection and arrangement of the material contained in the database can receive copyright protection. The material itself, in contrast, may receive protection separate and apart from the selection and arrangement of material, depending on the nature of the material.
- For the selection and arrangement of the material to receive copyright protection, the selection and arrangement must be expressive. In the EU, the standard is that the selection and arrangement must 'constitute the author's own intellectual creation'. In the United States, the selection and arrangement must show a spark of creativity. If a follow-on publisher reproduces the selection and arrangement of the original database, the follow-on publisher infringes its copyright.
- If the items aggregated in the database are copyrightable works, eg, poems, articles, or photographs, each item can be separately protected under copyright.
- If the items aggregated in the database are facts, different legal theories in different jurisdictions can prevent the copying of even a relatively small number of facts that are not arranged in an original manner.
- In the European Union, the overlap is codified in the Database Directive. Copyright protection applies to creative selection and arrangement of the contents of the database, while *sui generis* protection applies to the contents themselves.

- *Sui generis* protection is available to a database reflecting substantial investment in the obtaining, verification, or presentation of the contents. The European Court of Justice has ruled that a database that is a 'spin-off' or by-product of ongoing business activity does not reflect such investment.
- The Database Directive's *sui generis* provisions prohibit the extraction of a substantial part of a database, evaluated quantitatively or qualitatively. A follow-on user has no clear means of determining what a qualitatively substantial part of a database is. Thus, extraction of even a small amount of data from a database could result in litigation.
- The Database Directive does not afford *sui generis* protection for foreign database owners whose home jurisdiction does not provide *sui generis* protection, eg, US database companies.
- In the US, the *Feist* decision makes clear that copyright protects only the creative elements of selection and arrangement in a database. Several courts have found that such expression exists in the selection of fields in electronic databases. Additionally, the Digital Millennium Copyright Act prohibits the circumvention of technological protection measures that restrict access to electronic databases.
- Although the US Congress considered adopting legislation similar to the Database Directive's *sui generis* protection, it ultimately did not enact such legislation. Nonetheless, other forms of protection give database publishers recourse against copiers of factual contents from databases.
    - If the facts are 'created' rather than 'discovered', that is, if the facts reflect the publisher's judgement and creativity, the facts may receive copyright protection.

- Time sensitive information can receive protection under the state law ‘hot-news misappropriation’ theory.
- Facts in databases stored on websites also are protected by the tort of trespass to chattels and the Computer Fraud and Abuse Act.