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SPEAKING OF THE WORLD: Fact, Opinion and the Originality Standard of Copyright

Alan L. Durham*

I. INTRODUCTION

"The world does not speak. Only we do." So said post-modernist philosopher Richard Rorty. Rorty's epigram occurs in a discussion of truth, mind and language, yet it recalls a persistent problem in copyright law. The world does not speak, but authors speak of the world. When they speak of the world, what do they own by copyright? The question is most difficult in the case of factual works. Whether they are histories, scientific treatises, travel guides or telephone books, such works, in a manner of speaking, hold up a mirror to the world. What is captured in the reflection is attributable, in part, to the author's labor and genius; the world does not, after all, speak for itself. Yet, if the mirror is an accurate one, the truths revealed are properties of the world. The author did not create those truths, and in that sense is not the "author" of those truths. Hence, if the author's work is copyrighted, to what extent can the author claim those truths as his own, and prevent others, for the duration of the copyright, from reproducing them?

Philosophers might find the mirror analogy naïve,² yet it gives us a place to start. Copyright extends to "original works of authorship fixed in any tangible medium of expression."³ Works of authorship may communicate facts, but facts themselves are not copyrightable.⁴ If I write, "In 1970, the population of

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RICHARD RORTY, CONTINGENCY, IRONY, AND SOLIDARITY 6 (1989).

^{2.} See infra Part IV.A.

^{3. 17} U.S.C. § 102(a) (1994). Works of authorship include, among other things, literary and dramatic works, musical works, pictorial, graphic and sculptural works, motion pictures and other audiovisual works, sound recordings and architecture. *Id.*

^{4.} Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344-45 (1991) ("That there can be no valid copyright in facts is universally understood. The most fundamental axiom of copyright law is that 'no author may copyright his ideas or the facts he narrates." (quoting Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 556 (1985))); Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc., 945 F.2d 509, 512 (2d Cir. 1991) ("Facts, without more, are not copyrightable.").

Princeton, New Jersey, was 12,331,"⁵ others may reproduce that fact, even if the population is known only because I walked the streets of Princeton, knocking on doors and counting every inhabitant.⁶ On the other hand, if I clothe that fact in distinctive rhetoric of my own, I can prevent others from copying my "expression."⁷ In this way, the law strikes a balance. My language, of which I am truly the "author," is something I own, but the fact may be reported by others who are obliged only to develop their own "expression." In a sense, I own the mirror, not the reflection.

In practice, copyright cases seldom deal with the appropriation of individual facts or the language in which individual facts are expressed. They more often deal with collections of facts, where § 103(a) of the Copyright Act comes into play. Section 103(a) extends copyright protection to "compilations," defined in § 101 as "work[s] 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 a whole constitutes an original work of authorship." Because all compilations are "selected, coordinated, or arranged" in some manner, 9 claims based on compilations raise one of the most fundamental questions in copyright law: What constitutes an "original work of authorship?"

Id.

^{5.} I borrow this fact, with respect and apologies, from Robert C. Denicola, Copyright in Collections of Fact: A Theory for the Protection of Nonfiction Literary Works, 81 COLUM. L. REV. 516, 524 (1981).

^{6.} See Denicola, supra note 5, at 525.
The population figure that emerges from this exercise is not an original work of authorship in the same sense as a painting or novel. We are unaccustomed to speaking of Darwin, for example, as the "originator" of evolution, or Rutherford as the "author" of the proton. We are instead inclined to label such contributions "discoveries," implying that the existence of the information is not dependent on the efforts of its discoverer. The census taker has in this sense "copied" the population figure from the world around him. This aspect of the work does not owe its origin to the author, and hence lies beyond the traditional sphere of copyright.

^{7.} See Feist, 499 U.S. at 348 ("[I]f the compilation author clothes facts with an original collocation of words, he or she may be able to claim a copyright in this written expression. Others may copy the underlying facts from the publication, but not the precise words used to present them."); Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 547 (1985) ("[N]o author may copyright facts or ideas. The copyright is limited to those aspects of the work—termed 'expression'—that display the stamp of the author's originality."). If there are only a few ways to communicate a particular fact, as is perhaps true of this example, even the expression may be denied copyright protection under the doctrine of "merger." See infra notes 60-64 and accompanying text.

^{8. 17} U.S.C. § 101 (1994 & Supp. V 1999) (emphasis added).

^{9.} Even collections which include every element in a given universe of facts (e.g., a telephone number for every resident of a city) are "selected" in the sense that the author has chosen the boundaries of the universe (e.g., the city rather than the county). The author's choice to omit nothing is also a kind of "selection." Even a random ordering might be considered an "arrangement," if it were consciously chosen. Whether such "selection" and "arrangement" count for purposes of copyright law depends on how one defines an "original work of authorship."

The Supreme Court addressed this question in the *Feist* case, which considered the copyrightability of a white pages telephone directory. ¹⁰ The compilers of the directory did not invent the numbers; they merely reported the facts. ¹¹ They may have expended considerable labor in assembling those facts, but *Feist* firmly rejected any copyright claim based on their "sweat of the brow." ¹² Instead, the Court imposed the standard of "originality," which it termed the "sine qua non of copyright." ¹³ An "original" work, it said, is one "independently created by the author (as opposed to copied from other works), [which] possesses at least some minimal degree of creativity." ¹⁴ Facts themselves are not "original," existing independently of their discoverers, but a compilation of facts may be "original," if the selection, coordination and arrangement of facts exhibits a faint spark of creativity. ¹⁵ The Court held that the alphabetical arrangement of telephone listings lacked such a spark. ¹⁶

Feist was an important step forward in the treatment of factual works. It ended the debate over whether the industrious collection of facts could itself support a copyright in the collection, and it identified a dose of "creativity" as an essential element of originality. 17 However, subsequent cases examining other compilations, such as price guides and pitching forms, have exposed a missing term in the Feist equation: If originality requires "creativity," what is "creativity?" Specifically, if the "facts" included in a compilation are in part the product of the author's subjective judgment, in contrast to "hard facts" like telephone numbers, does that element of judgment make the compilation, or even its constituent "facts," original and copyrightable? If, for example, the Feist directory had listed not telephone numbers but life expectancies, and otherwise had maintained the selection, coordination and arrangement of the original directory, would the compilation have been "original?" Or should copyright law treat differently the kind of creativity involved in estimating a life span and the kind involved in expressing any information in a particular manner?

It is not a minor point. Originality is, as the Supreme Court said, the "sine qua non of copyright." It separates what can be owned by copyright, for the prolonged period of the life of the author plus seventy years, ¹⁹ from what

¹⁰ Feist, 499 U.S. at 340.

^{11.} *Id*. at 343.

^{12.} *Id.* at 353.

^{13.} Id. at 345.

^{14.} Id.

^{15.} Id. at 358-59.

^{16.} Id. at 362.

^{17.} Id.

^{18.} Id. at 345.

^{19. 17} U.S.C. § 302(a) (1994 & Supp. V 1999). The term for anonymous works and works made for hire is 120 years from the date of creation, or 95 years from the date of first publication, whichever expires first. Id. § 302(c). Prior to the passage of the Copyright Term Extension Act in

cannot be owned at all, or what can be owned only under the more rigorous standards, and shorter duration, of the patent monopoly. Given the perception of some that intellectual property rights recently have expanded far beyond their proper sphere, ²⁰ this separation is deserving of careful attention. The balance struck in *Feist* seems, in the more recent cases, to have been misunderstood or ignored.

Feist drew the boundary of copyrightable subject matter, or "original" authorship, between "creation" and "discovery." In factual works—works that describe aspects of the world in which we live—"creation" generally includes the author's choice of language, arrangement of materials, and selection of materials to include or exclude. These are choices made at the author's discretion. They are not imposed by an order found in the world, but reflect the author's judgment as to how and what to communicate to his audience. Together, these choices produce the kind of original "expression" traditionally protected by copyright. "Discovery" includes any information about the world communicated through the medium of the author's expression. Sometimes that information is "original" in the sense that it has never been communicated before, but it is not "original" in the sense that the author made

1999, the term of copyright was the life of the author plus 50 years, or, for anonymous works and works made for hire, 100 years from the date of creation or 75 years from the date of first publication. *Id.* §§ 302(a), (c) (amended 1998).

[T]here is currently a strong tendency to "propertize" everything in the realm of information. Intellectual property law is expanding on an almost daily basis as new rights are created or existing rights are applied to give intellectual property owners rights that they never would have had in an earlier time.

Id.

In 1948, Ralph Brown observed that "[i]n an acquisitive society, the drive for monopoly advantage is a very powerful pressure. Unchecked, it would no doubt patent the wheel, copyright the alphabet, and register the sun and moon as exclusive trademarks." Ralph S. Brown, Jr., Advertising and the Public Interest, 57 YALE L.J. 1165, 1206 (1948). The patent system has recently come under fire for granting rights to inventions that seem excessively broad, abstract or unoriginal. See, e.g., James Gleick, Patently Absurd, N.Y. TIMES MAG., Mar. 12, 2000, at 44. Particularly in the business arena, patents are now awarded to inventions having only dubious connections to the constitutionallyreferenced "useful arts." See Alan L. Durham, "Useful Arts" in the Information Age, 1999 BYU L. REV. 1419, 1421 (1999). The Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998), and the Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 112 Stat. 2827 (1998), raise similar concerns over the tightening grip of copyright. See David Nimmer, A Riff on Fair Use in the Digital Millennium Copyright Act, 148 U. PA. L. REV. 673 (2000). Trademark rights have recently been recognized in distinctive colors, Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159 (1995), odors, In re Clarke, 1990 TTAB LEXIS 53 (T.T.A.B. Sept. 19, 1990), restaurant decors, Two Pesos, Inc. v. Taco Cabana, Inc., 505 U.S. 763 (1992), and comedic punchlines, Foxworthy v. Custom Tees, Inc., 879 F. Supp. 1200 (N.D. Ga. 1995). Perhaps we have come closer to Professor Brown's vision of "unchecked" acquisitiveness than he could have imagined. See Mark A. Lemley, Romantic Authorship and the Rhetoric of Property, 75 TEX. L. REV. 873, 898 (1997).

^{21.} Feist, 499 U.S. at 347.

^{22.} Id. at 358.

it. 23 If the information is accurate, the author found it. Such information, according to Feist, belongs to the public. 24

This distinction has broken down in recent cases, which would characterize as copyrightable subject matter observations that are subjective, uncertain or opinionated, even though they attempt to be, and purport to be, accurate reflections of the world. These cases subvert the Feist definition of "originality"—the "sine qua non of copyright"—and upset the balance between private ownership and the public domain. Indeed, so few facts are entirely free of subjectivity and opinion, one questions the continuing vitality of Feist's prohibition against copyrighting facts. At the very least, the courts have created a significant problem of line drawing, with little theoretical I propose, therefore, a return to the Feist standard of iustification. copyrightable "originality," with the understanding that even subjective facts are not subject to copyright protection. To the extent that public policy demands a reward for the compilers of such facts (and that may or may not be the case), new legislation must be crafted that strikes the right balance to advance the public interest. The long duration and low thresholds of copyright may be appropriate for traditional "expression," but quite inappropriate for facts, no matter how "opinionated."

In Part II of this article, I review the perennial tensions in copyright law born of the effort to separate copyrightable expression from uncopyrightable Any effort to define copyrightable ideas, discoveries and procedures. originality in the context of "opinionated" factual works must conform to, or at least co-exist with, the traditional framework discussed in this section. In Part III. I examine Feist and other cases dealing with the concept of originality. I have organized this section according to the kinds of works examined—from directories, which afford little room for opinion except in the choice of material to include, to works which speculate about the past, predict the future or deliberately mislead. These cases provide a number of perspectives on a common problem; namely, how can one separate what is original to the author, and copyrightable, from what the author merely discovers in the world, when the author's work is the product of a complex interaction between creation and observation. In Part IV, I propose a refinement, or re-affirmation, of the Feist standard of originality, to permit copyright protection for individual ways of communicating facts, while denying copyright protection to facts themselves, even when they are "opinionated" facts. If we follow the contrary path suggested by the recent cases, we may give to authors who speak of the world too much of the world of which they speak.

^{23.} Id. at 347-48.

^{24.} Id. at 348.

II. CONUNDRUMS AND DICHOTOMIES

Like other fields of intellectual property law, the law of copyright is characterized, to a large extent, by the balancing and tension of opposing principles. Much of the conflict, or equipoise, of these principles can be traced to Article I, Section 8, Clause 8 of the United States Constitution, which is the source of congressional authority to enact both patent and copyright laws. It provides Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."25 Historians and legal scholars find in this sentence two parallel threads—one relevant to patent law ("[t]o promote the Progress of . . . useful Arts, by securing for limited times to . . . Inventors the exclusive Right to their . . . Discoveries") and the other relevant to copyright law ("[t]o promote the Progress of Science . . . by securing for limited times to Authors . . . the exclusive Right to their . . . Writings"). 26 "Science," in the eighteenth century, meant knowledge or learning, rather than the narrower field of inquiry to which "science" refers today.2

As made explicit in the copyright laws, the "exclusive Right to their ... Writings" includes the rights of authors to reproduce, distribute, perform or adapt their works. ²⁸ These exclusive rights advance the progress of knowledge by ensuring that authors will reap the financial reward of their efforts, and consequently will have an incentive to undertake such efforts in the first place. ²⁹ Compared to other means by which governments could encourage progress, such as prizes to worthy authors, the exclusive rights model has the advantages of simplicity, efficiency and self-regulation. ³⁰ Yet the Constitution holds that authors' rights can endure only for "limited times," ³¹ and the stated

^{25.} U.S. CONST. art. I, § 8, cl. 8.

^{26.} See Durham, supra note 20, at 1425-26; EDWARD C. WALTERSCHEID, TO PROMOTE THE PROGRESS OF THE USEFUL ARTS: AMERICAN PATENT LAW AND ADMINISTRATION, 1798-1836, at 60-61 (1998); Karl B. Lutz, Patents and Science: A Clarification of the Patent Clause of the U.S. Constitution, 18 GEO. WASH. L. REV. 50, 51 (1949-1950).

^{27.} Lutz, supra note 26, at 51 ("The word 'science,' which comes from the Latin scire, 'to know,' at the writing of the Constitution meant learning in general."); Arthur H. Seidel, The Constitution and a Standard of Patentability, 48 J. PAT. OFF. SOC'Y 5, 11 (1966).

^{28. 17} U.S.C. § 106 (1994 & Supp. V 1999).

^{29.} Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 564 (1985) ("The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors.").

^{30.} In other words, the authors whose efforts are, in the judgment of the marketplace, most worthy will be most richly compensated.

^{31.} See Graham v. John Deere Co., 383 U.S. 1, 5 (1966) (referring to the parallel patent language as "both a grant of power and a limitation"). The Constitution may impose further limits simply through the implicit meanings of the words "author" and "writing," particularly when contrasted with the words "inventor" and "discovery." On the other hand, some argue that Congress is better situated than the courts to define the nature of "progress" and to determine, as a matter of

purpose of "promot[ing] the Progress of Science" implicitly disallows any grant of rights hostile to that purpose. One might suppose that the strongest rights inevitably "promote the Progress" most effectively, but the copyright laws, like the "limited times" provision in the Constitution itself, reflect an understanding that the most effective policy lies in a middle ground, where authors' rights are strong enough to provide the required incentive, but not so strong that the public—the intended beneficiary of the intellectual property laws³²—is denied the greatest possible enjoyment, and productive use, of authors' labors. 33

The built-in tensions between ownership and access, incentive and enjoyment, underlie certain "dichotomies" which are fundamental to the subject matter of copyright. These include the idea/expression dichotomy and the fact/expression dichotomy. A third, for the sake of uniformity, I will call the process/expression dichotomy, although it is not generally expressed in those terms. Each of these dichotomies has some bearing on the question of "originality," so I will discuss them in turn in the following subsections, relying in large part on the seminal cases still cited by courts and academics.

A. The Idea/Expression Dichotomy

The idea/expression dichotomy has its statutory basis in § 102(b) of the Copyright Act, which provides that "[i]n no case does copyright protection for an original work of authorship extend to any idea . . . regardless of the form in which it is described, explained, illustrated, or embodied in such work." The task of identifying an "idea" and distinguishing it from the protectable elements of a work of authorship has been left to the courts. In Nichols v. Universal Pictures Corp., 35 decided in 1930, Judge Learned Hand said nearly all that can be said. His remarks laid down the analytical framework still employed today, while candidly admitting its shortcomings. The plaintiff had written a play, entitled "Abie's Irish Rose," which concerned the romance of a Jewish boy and a Catholic girl—a match opposed by their respective families, but ending in a happy reconciliation. 36 The defendant's motion picture, "The

policy, how it is best achieved. See Jane C. Ginsburg, No "Sweat?" Copyright and Other Protection of Works of Information after Feist v. Rural Telephone, 92 COLUM. L. REV. 338, 378 (1992).

^{32.} Harper & Row, 471 U.S. at 546 ("The monopoly created by copyright... rewards the individual author in order to benefit the public." (quoting Sony Corp. of America v. Universal City Studios, Inc., 464 U.S. 417, 477 (1984))).

^{33.} The principle of "fair use," for example, circumscribes the rights of authors by allowing their works to be reproduced without permission under limited circumstances. 17 U.S.C. § 107 (1994).

^{34. 17} U.S.C. § 102(b) (1994). Section 102(b) also denies copyright protection to "any . . . procedure, process, system, method of operation, concept, principle, or discovery." *Id.*

^{35. 45} F.2d 119 (2d Cir. 1930).

^{36.} Id. at 120-21.

Cohens and the Kellys," told a similar tale, but in this instance the genders were reversed and a stolen fortune played a significant role in the plot.³⁷ The works were similar in outline, but differed in many details. The question was whether the works shared anything more than unprotectable "ideas."³⁸

One might say that texts employing different language have nothing in common but ideas. To use a short example, if the sentence "Attorneys enjoy stamp collecting" is changed to "Lawyers like philately," one could argue that the "expression" has changed because the words have changed; perhaps nothing remains but the "idea" of associating a certain profession with a certain hobby. Judge Hand held that copyright protection cannot be limited to specific language: "It is of course essential to any protection of literary property... that the right cannot be limited to the text, else a plagiarist would escape by immaterial variations." "39

To call such protection "essential" may be an overstatement, 40 but copyright that could be avoided by minor changes would be of limited value. On the other hand, if copyright does not extend to ideas, there must be some way for a second author to convey the same ideas as a first author without liability for infringement. Judge Hand saw the problem in terms of the varying "levels of abstraction" in which a work can be characterized:

Upon any work, and especially upon a play, a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his "ideas," to which, apart from their expression, his property is never extended.⁴¹

The difference between unprotectable "ideas" and protectable "expression" is one of specificity. If works are similar only at a general level, they share only ideas; if they are similar at a more specific level, though not necessarily the level of precise wording, 42 they may share expression. This is more a way

^{37.} Id

^{38.} Id. at 121. Judge Hand assumed, for the sake of argument, that copying had occurred. Id. at 120.

^{39.} Id. at 121.

^{40.} Copyright "limited literally to the text" would protect authors against the easiest and least expensive forms of plagiarism, such as reproduction by a photocopier. It would not stop "plagiarists" who took pains to re-phrase the original work. If the latter sort of copying were permitted, presumably the author's expectation of financial recovery would be so undermined that the "Progress of Science" would be hindered.

^{41.} Nichols, 45 F.2d at 121.

^{42.} Or the equivalent level of expression for non-textual works.

of formulating the problem than it is a solution, ⁴³ and Judge Hand admitted that the boundary between idea and expression can never been drawn with certainty. ⁴⁴ Still, he had little difficulty finding the similarities between "Abie's Irish Rose" and "The Cohens and the Kellys" so general that they could not be considered similarities of expression. ⁴⁵

Today the work scrutinized under the "levels of abstraction" microscope is as likely to be a computer program as a play, 46 yet the line between idea and expression still eludes precise definition. 47 In the case of a dramatic work, the broad outlines of a story are likely to be considered its "idea." More specific plot twists or elements of character development may be considered "expression" protected from copying. 48 Although distinguishing idea and expression sounds like a metaphysical issue, it is characterized more commonly as a matter of policy, based upon what best promotes the "Progress of Science." 49 Ultimately, "idea" is whatever a court regards as so general that it belongs in the public domain; "expression" is whatever remains. 50 Courts are guided more by intuition than by rigorous analysis, and

Id

49. Ginsburg, supra note 31, at 346. In copyright law, an "idea" is not an epistemological concept, but a legal conclusion prompted by notions—often unarticulated and unproven—of appropriate competition. Thus, copyright doctrine attaches the label "idea" to aspects of works which, if protected, would (or, we fear, might) preclude, or render too expensive, subsequent authors' endeavors.

ld.

50. See Herbert Rosenthal Jewelry Corp. v. Kalpakian, 446 F.2d 738, 742 (9th Cir. 1971). The guiding consideration in drawing the line is the preservation of the balance between competition and protection reflected in the patent and copyright laws. What is basically at stake is the extent of the copyright owner's monopoly—

^{43.} As Judge Easterbrook observed, "[s]ometimes called the 'abstractions test,' Hand's insight is not a 'test' at all. It is a clever way to pose the difficulties that require courts to avoid either extreme of the continuum of generality. It does little to help resolve a given case" Nash v. CBS, Inc., 899 F.2d 1537, 1540 (7th Cir. 1990).

^{44. &}quot;Nobody has ever been able to fix that boundary, and nobody ever can." Nichols, 45 F.2d at 121.

^{45.} Id. at 121-22.

^{46.} See, e.g., Computer Assocs. Int'l, Inc. v. Altai, Inc., 982 F.2d 693, 703-07 (2d Cir. 1992) (applying an idea/expression analysis to copyrighted computer programs); Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240, 1252-54 (3d Cir. 1983).

^{47.} Appeals to the "ordinary observer" have been of little assistance. Nash, 899 F.2d at 1540. Who is the "ordinary" observer, and how does this person choose the level of generality? Ordinary observers, like reasonable men in torts, are fictitious characters of the law, reminders that judges must apply objective tests rather than examine their own perceptions. They do not answer the essential question: at what level of generality? After 200 years of wrestling with copyright questions, it is unlikely that courts will come up with the answer any time soon, if indeed there is "an" answer, which we doubt.

^{48.} For example, in *Sheldon v. Metro-Goldwyn Pictures Corp.*, 81 F.2d 49, 49-56 (2d Cir. 1936), Judge Hand found copyright infringement in the duplication of various incidents in a tale of murder.

as Learned Hand confessed late in his career, the decisions are inevitably "ad hoc."⁵¹

Nichols also discusses the position of authors as unwitting contributors to the public domain. ⁵² "Abie's Irish Rose" may have contained original ideas, and those ideas, rather than any particular expression, may have been the source of whatever success the play achieved. ⁵³ Although Judge Hand doubted whether the ideas were original, he held it "immaterial." ⁵⁴ "Though the plaintiff discovered the vein [of ideas], she could not keep it to herself." ⁵⁵ Her copyright protected her expression, but "not . . . everything that might be drawn from her play; its content went to some extent into the public domain." ⁵⁶ As Judge Easterbrook observed sixty years later, the consignment of ideas to the public domain is a part of the balancing of opposing interests that advances, or is intended to advance, the progress of knowledge. ⁵⁷ To include ideas within the ambit of copyright might encourage original thinking, but it would hinder the process by which authors build upon the work of their predecessors.

Intellectual (and artistic) progress is possible only if each author builds on the work of others. No one invents even a tiny fraction of the ideas that make up our cultural heritage. Once a work has been written and published, any rule requiring people to compensate the author slows progress in literature and art, making useful expressions "too expensive", forcing authors to re-invent the wheel, and so on. Every work uses scraps of thought from thousands of predecessors, far too many to compensate even if the legal system were frictionless, which it isn't.⁵⁸

The trick is to encourage a first author, without too much discouraging a second.⁵⁹ The idea/expression dichotomy is one means of striking that balance.

from how large an area of activity did Congress intend to allow the copyright owner to exclude others?

Id.; see also Apple Computer, 714 F.2d at 1253.

^{51.} Peter Pan Fabrics, Inc. v. Martin Weiner Corp., 274 F.2d 487, 489 (2d Cir. 1960); see also Herbert Rosenthal, 446 F.2d at 742 ("At least in close cases, one may suspect, the classification the court selects may simply state the result reached rather than the reason for it.").

^{52.} Nichols v. Universal Pictures, Corp., 45 F.2d 119 (2d Cir. 1930).

^{53.} Id. at 122.

^{54.} *Id*.

^{55.} Id.

^{56.} Id

^{57.} Nash v. CBS, Inc., 899 F.2d 1537, 1541-42 (7th Cir. 1990).

^{58.} Id. at 1540.

See id. at 1541.

At each instant some new works are in progress, and every author is simultaneously a creator in part and a borrower in part. In these roles, the same

An important addendum to the idea/expression dichotomy is the concept of "merger," discussed in *Herbert Rosenthal Jewelry Corp. v. Kalpakian.*⁶⁰ Sometimes an "idea" can be expressed in only a small number of ways. In *Herbert Rosenthal*, the court found that to be true of the plaintiff's idea of a jewel-encrusted pin in the shape of a bee. The plaintiff (or, at any rate, plaintiff's counsel) could not suggest any ways in which the same idea could be expressed without the result being substantially similar to the plaintiff's expression. In this circumstance, idea and expression are "inseparable," and if the expression were to be protected by copyright, the idea of the jeweled bee pin would be locked up as well: "When the 'idea' and its 'expression' are thus inseparable, copying the 'expression' will not be barred, since protecting the 'expression' in such circumstances would confer a monopoly of the 'idea' upon the copyright owner...."

B. The Fact/Expression Dichotomy and the Concept of "Originality"

The fact/expression dichotomy is in many respects similar to the idea/expression dichotomy, and courts sometimes treat the two as a unitary principle. Both are concerned with identifying and protecting only an author's "expression," and both find support in § 102(b) of the Copyright Act. But there are important differences to consider. First, as already discussed, the line between idea and expression is one of specificity. As

person has different objectives. Yet only one rule can be in force. This single rule must achieve as much as possible of these inconsistent demands.

Id.

- 60. 446 F.2d 738 (9th Cir. 1971).
- 61. Id. at 740.
- 62. Id.
- 63. Id. at 742.

64. Id. See also Morrissey v. Procter & Gamble Co., 379 F.2d 675, 678-79 (1st Cir. 1967). When the uncopyrightable subject matter is very narrow, so that the "topic necessarily requires," if not only one form of expression, at best only a limited number, to permit copyrighting would mean that a party or parties, by copyrighting a mere handful of forms, could exhaust all possibilities of the substance.... We cannot recognize copyright as a game of chess in which the public can be checkmated.

Id. (citations omitted).

65. See, e.g., Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 349-50 (1991) ("[C]opyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. This principle, known as the idea/expression or fact/expression dichotomy, applies to all works of authorship." (citation omitted)).

66. "Section 102(b) is universally understood to prohibit any copyright in facts." Feist, 499 U.S. at 356. That prohibition lies in the reference to "discoveries:" "In no case does copyright protection for an original work of authorship extend to any . . . discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work." Id.

67. See supra notes 41-45 and accompanying text.

authors work out the details of their conceptions, their efforts pass imperceptibly from unprotected idea to protected expression. This is not true of the fact/expression dichotomy. Facts cannot be copyrighted, no matter how detailed, arcane or even trivial they may be. Second, the line between idea and expression lies primarily, if not exclusively, within the abstract realm of intellect. Without straying too far into Rorty's territory, both idea and expression seem products of the mind. The line between fact and expression lies, or purports to lie, between the mind and the world—that is, between what is *created* by the author and what is, at most, *discovered* by the author. This distinction promises a more concrete boundary between fact and expression than between idea and expression.

The fact/expression dichotomy is closely tied to the concept of "originality." Section 102(a) defines the subject matter of copyright as "original works of authorship." In Feist, the Supreme Court held that "originality" is also a constitutional requirement, linked to the "crucial terms 'authors' and 'writings'" in Article I, Section 8.71 For its analysis of the originality requirement and, by extension, of the fact/expression dichotomy, the Feist Court turned to another seminal copyright case—Burrow-Giles Lithographic Co. v. Sarony, decided in 1884.72

The work at issue in *Burrow-Giles* was a photograph of Oscar Wilde, which the defendant had reproduced and offered for sale in thousands of copies.⁷³ The photograph shows Wilde seated in a contemplative pose, his head propped against his left hand while his right hand clutches a book.⁷⁴ He is dressed in what appears to be a velvet coat and knee breeches, and plush draperies cover his chair.⁷⁵ The defendant argued that a photograph is not subject to copyright because it is not the "writing" of an "author," as the Constitution requires, but a "reproduction on paper of the exact features of some natural object or of some person." The Court found the constitutional question "not free from difficulty," but ultimately held that photographs can

^{68.} One could argue that some ideas exist independent of the human mind. For example, perhaps the "idea" of the Pythagorean theorem would still exist, in some sense, even if there were no human mathematicians to appreciate it. These philosophical quandaries of the tree-falls-in-the-forest variety can be short-circuited simply by categorizing as "fact," rather than "idea," any property of the world that may be discovered, but is not created, by an author.

^{69.} But see infra Part IV.A.

^{70. 17} U.S.C. § 102(a) (1994) (emphasis added).

^{71.} Feist, 449 U.S. at 346.

^{72. 111} U.S. 53 (1884).

^{73.} Id. at 54.

^{74.} Napolean Sarony, "Oscar Wilde, No. 18" (1882), available at http://www.humnet.ucla.edu/humnet/clarklib/wildphot/sarony.htm.

^{75.} Id

^{76.} Burrow-Giles, 111 U.S. at 56.

^{77.} Id.

be copyrightable works. ⁷⁸ In part, the Court extrapolated from the treatment previously given to maps and charts. While they are usually intended to reflect the facts of the world rather than their author's fancy, maps and charts were included in the subject matter of copyright in the act passed by the First Congress. ⁷⁹ More importantly, the Court found that photographers are properly considered "authors." ⁸⁰ An "author," said the Court, is "he to whom anything owes its origin; originator; maker; one who completes a work of science or literature." ⁸¹ Similarly, a "writing" does not mean only words on paper, but properly includes other means, such as printing and engraving, "by which the ideas in the mind of the author are given visible expression." ⁸² If Congress (up to that time) had not explicitly included photography in the list of works subject to copyright, it was probably only because photography had not been invented when the statute was enacted. ⁸³

The "difficulties" lay in the argument that a photograph, unlike a painting or even a map, is not the product of an artist's skill, but a mechanical reproduction of the scene laid before the camera's lens:

[I]t is said that an engraving, a painting, a print, does embody the intellectual conception of its author, in which there is novelty, invention, originality, and therefore comes within the purpose of the Constitution in securing its exclusive use or sale to its author, while the photograph is the mere mechanical reproduction of the physical features or outlines of some object animate or inanimate, and involves no originality of thought or any novelty in the intellectual operation connected with its visible reproduction in shape of a picture. . . . It is simply the manual operation, by the use of . . . instruments and preparations, of transferring to the plate the visible representation of some existing object, the accuracy of this representation being its highest merit.⁸⁴

In other words, Oscar Wilde at a particular time on a particular day had looked just as depicted in the photograph. His image was recorded on paper by a mechanical process, but the photographer was not the "author" of the scene.

^{78.} Id. at 58.

^{79.} Id. at 56-57. Mason v. Montgomery Data, Inc., 967 F.2d 135 (5th Cir. 1992), is a recent case affirming the copyrightability of maps. Although the cartographer "sought to depict the information accurately," the depiction of reality within the limited confines of a map required creative choices of presentation. Id. at 140. More dubiously, the court also relied on the cartographer's reconciliation of conflicting sources. Id. To the extent that the reconciliations were meant to reveal the true lay of the land, they could be characterized as unprotectable facts.

^{80.} Burrow-Giles, 111 U.S. at 60.

^{81.} Id. at 57-58 (quoting WORCESTER'S ELEMENTARY DICTIONARY OF THE ENGLISH LANGUAGE 48 (1860)).

^{82.} Id. at 58.

^{83.} Id.

^{84.} Id. at 58-59.

The Court disagreed. The photograph, it held, was an expression of the photographer's "own original mental conception," given "visible form by posing the said Oscar Wilde in front of the camera, selecting and arranging the costume, draperies, and other various accessories in said photograph, arranging the subject so as to present graceful outlines, arranging and disposing the light and shade, [and] suggesting and evoking the desired expression." By stage-managing the scene the photographer had become the "author" of the photograph; the act of authorship was not triggering the shutter, but setting up the shot. The resulting photograph was "the product of plaintiff's intellectual invention."

Subsequent cases have also relied on photographers' exercise of creative discretion in terms of arranging, selecting or framing a scene, as well as in such technical matters as the choice of lenses, film and developing techniques, to supply the necessary elements of "authorship" and "originality." In an era when photography is universally accepted as an art form, and the differences between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an amateur's snapshot are readily apparent, between an amateur's snapshot are readily apparent, between an Ansel Adams landscape and an amateur's snapshot are readily apparent, between an amateur's snapshot are readily appar

^{85.} Id. at 60.

^{86.} Id.

^{87.} Id.

^{88.} See, e.g., Los Angeles News Serv. v. Tullo, 973 F.2d 791, 794 (9th Cir. 1992). In Los Angeles News, the court held that "raw" news footage of disaster scenes met the standard of originality, based on testimony regarding:

[[]T]he initial decisions about the newsworthiness of the events and how best to tell the stories succinctly and effectively; the selections of camera lenses, angles and exposures; the choices of the heights and directions from which to tape and what portions of the events to film and for how long.

Id. The camera operator compared herself to an artist: "I use a paintbrush. I use the camera to tell a story." Id. See also Rogers v. Koons, 960 F.2d 301, 307 (2d Cir. 1992) ("Elements of originality in a photograph may include posing the subjects, lighting, angle, selection of film and camera, evoking the desired expression, and almost any other variant involved."). In Rogers, the photographer of a group of puppies "drew on his years of artistic development" in choosing the lighting, the location, and the arrangement of the dogs. Id. at 304. "He also made creative judgments concerning technical matters with his camera and the use of natural light." Id.

^{89.} The amateur's snapshot is no less copyrightable than the artist's photograph. Even the least sophisticated photographer makes choices that influence the outcome, and courts are unwilling to base decisions of copyrightability on their perceptions of artistic merit. See infra notes 103-106 and accompanying text.

representation of that scene in a medium of expression, somewhat blurring the line between author and subject, or medium and message.⁹⁰

In any event, the *Burrow-Giles* definition of "author" as "he to whom anything owes its origin" has played a leading role in the development of the fact/expression dichotomy. In *Feist*, the Court described this "originality" requirement as "the touchstone of copyright protection" and "the very premise of copyright law." As the Court explained:

"No one may claim originality as to facts." This is because facts do not owe their origin to an act of authorship. The distinction is one between creation and discovery: The first person to find and report a particular fact has not created the fact; he or she has merely discovered its existence. To borrow from Burrow-Giles, one who discovers a fact is not its "maker" or "originator." "The discoverer merely finds and records." Census takers, for example, do not "create" the population figures that emerge from their efforts; in a sense, they copy these figures from the world around them. Census data therefore do not trigger copyright because these data are not "original" in the constitutional sense. The same is true of all facts—scientific, historical, biographical, and news of the day. "They may not be copyrighted and are part of the public domain available to every person." 93

On its face, the distinction seems obvious and relatively easy to apply. Authors are truly "authors" of the expression they use to communicate facts; such expression has its "origin" in an author's thought processes. Authors do not create the facts, and cannot claim that the facts they report are "original" in that sense. If I report the population of Princeton New Jersey as 12,331—a figure I may have discovered but did not *create*—others may reproduce that fact. They may not reproduce my individual manner of expressing that fact, shich does "owe its origin" to me. As the *Feist* Court went on to explain,

^{90.} Natkin v. Winfrey, 111 F. Supp. 2d 1003, 1011 (N.D. III. 2000) (rejecting claim by the producers of *The Oprah Winfrey Show* that they were co-authors of photographs depicting Winfrey on the set, holding that the elements the producers contributed—such as Winfrey, her facial expressions, her attire and the staging of the show—are not copyrightable).

^{91.} Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 347 (1991).

^{92.} Id. (quoting Miller v. Universal City Studios, Inc., 650 F.2d 1365, 1368 (5th Cir. 1981)).

^{93.} Id. at 347-48 (citations omitted).

^{94.} On occasion, of course, an author may invent "facts." See infra notes 107-116 and accompanying text.

^{95.} Unless there are so few ways to express the fact that the doctrine of "merger" applies, as it would in the idea/expression context. See supra notes 60-64 and accompanying text.

^{96.} Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 547-48 (1985) ("[C]opyright does not prevent subsequent users from copying from a prior author's work those constituent elements that are not original—for example... facts, or materials in the public domain—as long as such use does not unfairly appropriate the author's original contributions.").

compilations of facts raise more difficult issues.⁹⁷ Even though each fact in a compilation, considered individually, is uncopyrightable, the *collection* of facts may be copyrightable. This is so because the "selection, coordination, and arrangement" of the facts may introduce an element of expression which does "owe its origin" to the author.⁹⁸

Although originality is essential to the copyrightability of a work of authorship, the amount of originality required is very modest. In the words of one court, "only a dash of it will do." Originality does not require any measure of talent. The humblest doodle is as "original," in the sense of "owing its origin" to its creator, as the most sophisticated work of art. Nor does "originality" require novelty. Unlike a patent, which can be denied or held invalid if the claimed invention already existed in the "prior art," a valid copyright can subsist in a work that is indistinguishable from other works that preceded it, so long as it was not copied from its predecessors.

The Supreme Court set the low threshold of originality in *Bleistein v. Donaldson Lithographing Co.*, ¹⁰³ where the parties (and members of the Court) debated the copyrightability of a set of circus posters. Justice Harlan, in dissent, argued that a mere advertisement with scant artistic qualities should have no copyright protection. ¹⁰⁴ The majority held otherwise, largely based on the unsuitability of courts to judge aesthetic merit. ¹⁰⁵ The Court observed that

^{97.} Feist, 499 U.S. at 357-58.

^{98.} Id. at 357.

^{99.} Rogers v. Koons, 960 F.2d 301, 307 (2d Cir. 1992). See also Feist, 499 U.S. at 358 (referring to the "minimal level" of creativity required by the "not particularly stringent" requirement of originality).

^{100.} Am. Dental Ass'n v. Delta Dental Plans Ass'n, 126 F.3d 977, 979 (7th Cir. 1997) ("Term papers by college sophomores are as much within the domain of copyright as Saul Bellow's latest novel.").

^{101. 35} U.S.C. § 102 (1994 & Supp. V 1999).

^{102.} The usual hypothetical involves a poet whose verse happens to be identical to Keats's "Ode on a Grecian Urn," even though not copied from the earlier poem. See Sheldon v. Metro-Goldwyn Pictures Corp., 81 F.2d 49, 54 (2d Cir. 1936). In theory, the second poet could claim a copyright for his poem. Id.

Borrowed the work must indeed not be, for a plagiarist is not himself pro tanto an "author"; but if by some magic a man who had never known it were to compose anew Keats's Ode on a Grecian Urn, he would be an "author," and, if he copyrighted it, others might not copy that poem, though they might of course copy Keats's.

Id. Of course, the poet would have a difficult time persuading anyone of the poem's originality, and potential infringers would argue that they had copied from Keats, not from his successor.

^{103. 188} U.S. 239 (1903).

^{104. &}quot;The clause of the Constitution giving Congress power to promote the progress of science and useful arts, by securing for limited terms to authors and inventors the exclusive right to their respective works and discoveries, does not, as I think, embrace a mere advertisement of a circus." *Id.* at 253 (Harlan, J., dissenting).

^{105.} Id. at 251-52.

It would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations, outside

even the least of artistic creations, and those that most faithfully depict "actual . . . visible things," reflect something of the author's personality:

The copy is the personal reaction of an individual upon nature. Personality always contains something unique. It expresses its singularity even in handwriting, and a very modest grade of art has in it something irreducible, which is one man's alone. That something he may copyright 106

C. The Process/Expression Dichotomy

The last of the dichotomies is what I will call the "process/expression dichotomy," which distinguishes between a process (e.g., a method of preparing a crème brulè) and a work of authorship describing that process (e.g., a cookbook recipe for crème brulè). Generally speaking, the process/expression dichotomy separates useful procedures that are, at best, patentable from writings that are potentially copyrightable. The doctrine can be traced to the seminal case of *Baker v. Selden*. Selden devised an

of the narrowest and most obvious limits. At the one extreme some works of genius would be sure to miss appreciation. Their very novelty would make them repulsive until the public had learned the new language in which their author spoke.... At the other end, copyright would be denied to pictures which appealed to a public less educated than the judge. Yet if they command the interest of any public, they have a commercial value—it would be bold to say that they have not an aesthetic and educational value—and the taste of any public is not to be treated with contempt.

Id.

106. Id. at 250. Subsequent cases set the threshold of originality so low that it might be satisfied in spite of the author's best efforts to be unoriginal. For example, in Alfred Bell & Co. v. Catalda Fine Arts, 191 F.2d 99 (2d Cir. 1951), the court determined that carefully reproduced mezzotints of old masters were sufficiently "original" to be copyrighted:

All that is needed to satisfy both the Constitution and the statute is that the "author" contributed something more than a "merely trivial" variation, something 'tecognizeably his own." Originality in this context "means little more than a prohibition of actual copying." No matter how poor artistically the "author's" addition, it is enough if it be his own.

Id. at 102-03 (quoting Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 250 (1903)). The court found that the mezzotints had "originated' with those who made them," and it credited evidence that the reproductions did not, and were not intended to, precisely imitate the original paintings. Id. at 104-05. Moreover, the court found that even inadvertent deviations from the original could satisfy the requirement of originality: "A copyist's bad eyesight or defective musculature, or a shock caused by a clap of thunder, may yield sufficiently distinguishable variations." Id. at 105. In other words, an "original" variation may have its origin not in the mind, personality or will of the author, but in his tremulous hand. But cf. Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 362 (1991) (suggesting that a copyright plaintiff must demonstrate "the existence of . . . intellectual production, of thought, and conception." (quoting Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 56-60 (1984))).

improved double-entry system of bookkeeping, which he explained in a book containing examples of the required forms. Baker made and used account books based on essentially the same system, leading to charges of copyright infringement. A book explaining an accounting method may be copyrighted, but the Court noted the "clear distinction between the book, as such, and the art which it is intended to illustrate."

The same distinction may be predicated of every other art as well as that of book-keeping. A treatise on the composition and use of medicines, be they old or new; on the construction and use of ploughs, or watches, or churns; or on the mixture and application of colors for painting or dyeing; or on the mode of drawing lines to produce the effect of perspective,—would be the subject of copyright; but no one would contend that the copyright of the treatise would give the exclusive right to the art or manufacture described therein . . . To give to the author of the book an exclusive property in the art described therein, when no examination of its novelty has ever been officially made, would be a surprise and a fraud upon the public. 112

The inventor of a useful process must seek exclusive rights to that process through the patent system, 113 and if the inventor publishes a book explaining the process, without obtaining a patent, the process itself is "given to the public." 114 Moreover, if the process cannot be used without the reproduction of written materials (as was the case with Selden's forms), then the materials "are to be considered as necessary incidents to the art, and given therewith to the public . . . for the purpose of practical application." 115

The Court found the distinction between the *explanation* of a process and the process itself "so evident, that it requires hardly any argument to support it." Although the distinction is less evident today, when computer programs are included within the subject matter of copyright, 117 the principle of *Baker* is still important. As the Court observed, "[t]he very object of publishing a

^{108.} Id. at 100.

^{109.} Id.

^{110.} Id. at 101-02 ("There is no doubt that a work on the subject of book-keeping, though only explanatory of well-known systems, may be the subject of a copyright").

^{111.} Id. at 102.

^{112.} *Id*.

^{113.} *Id*.

^{114.} Id. at 103.

^{115.} Id.

^{116.} Id. at 102.

^{117.} A computer program is both a detailed description of a process and a necessary means for carrying it out. Durham, *supra* note 20, at 1457-66.

^{118.} The principle of *Baker* is now embodied in § 102(b) of the Copyright Act, which provides that "[i]n no case does copyright protection for an original work of authorship extend to any idea procedure, process, system, method of operation, concept, principle, or discovery, regardless of the

book on science or the useful arts is to communicate to the world the useful knowledge which it contains," and that object "would be frustrated if the knowledge could not be used without incurring the guilt of piracy of the book." Since an author's motivation might be making money for himself rather than communicating knowledge to the public, it would be more accurate to say that the object of the *copyright laws* is to benefit the public by the dissemination of knowledge. If publishing a description of a process allowed the author to monopolize that process, the public would benefit little from the publication. Should a monopoly be warranted as a means of encouraging invention, then it should be obtained through the patent system, which provides for rigorous examination, a shorter term than copyright, and strict standards of novelty and non-obviousness.

An issue not discussed in *Baker* is originality. Both Selden's system and his description of it seem to fall within the broad *Burrow-Giles* definition of originality, since both "had their origin" in Selden's mind. He did not "copy" his system from the world around him, as a census taker might be said to "copy" population statistics. ¹²⁰ Nevertheless, the Court's recognition of separate realms of creativity with separate systems of reward—patents for innovations in the useful arts, copyrights for original means of expression—bears on the question of originality in factual works, particularly when the works purport to be "useful" in ways generally associated with patentable inventions. ¹²¹

III. FACTS, LIES AND SPECULATION

The Feist case marked an attempt to reconcile two opposing principles of copyright law, each with "an impeccable pedigree": 122 "The first is that facts are not copyrightable; 123 the other, that compilations of facts generally are." 124 As long as the compilation is nothing more than a compendium of data, as could be said of the telephone book at issue in Feist, 125 the two propositions may seem incompatible. As the Court said, "[c]ommon sense tells us that 100 uncopyrightable facts do not magically change their status when gathered

form in which it is described, explained, illustrated, or embodied in such work." 17 U.S.C. § 102(b) (1994).

^{119.} Baker, 101 U.S. at 103.

^{120.} See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 347 (1991); Denicola, supra note 5, at 525.

^{121.} See infra note 372.

^{122.} Feist, 499 U.S. at 344.

^{123.} See supra Part II.B.

^{124.} Feist, 499 U.S. at 344.

^{125.} Narrative works, such as histories or biographies, can be described as "compilations of facts," but they are usually so rich in language that it is easier to distinguish between the facts themselves and the expression used to communicate them.

together in one place."¹²⁶ Yet properties can be found in a collection that are absent in its individual components. A symphony is more than the notes of the scale; the character of the symphony depends on how those notes are combined. Similarly, the qualities of a novel depend on how the author puts together words that might be found in any dictionary. When notes or words are assembled in works of authorship, the whole means much more, and has far greater claims to originality, than any of its component parts. In the same way, a collection of facts may include dimensions of authorship entirely lacking in any isolated fact.

That circumstance is reflected in the Copyright Act, which denies protection to facts, ¹²⁷ but includes within the subject matter of copyright "compilations" wherein "preexisting materials or . . . data . . . are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship." Facts are not born in the mind of an author and are not "original" in that sense, but the selection of facts for a particular compilation, and the manner in which those facts are organized and presented, may be as creative as any other product of an author's taste, judgment or imagination. According to Feist, it is here one finds the "originality" necessary for a factual compilation to be copyrighted as a work of authorship. ¹³⁰

Because copyright extends only to those "original" aspects of a compilation and not to the facts themselves, the protection afforded to a factual compilation is inevitably "thin." A subsequent author may borrow freely from a factual compilation, so long as there is no copying of the first author's original "selection, coordination or arrangement." That result might seem "unfair" because "much of the fruit of the compiler's labor may be used

The compilation author typically chooses which facts to include, in what order to place them, and how to arrange the collected data so that they may be used effectively by readers. These choices as to selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity, are sufficiently original that Congress may protect such compilations through the copyright laws.

Id.

^{126.} Feist, 499 U.S. at 345; see also Fin. Info., Inc. v. Moody's Investor Servs., Inc., 751 F.2d 501, 505 (2d Cir. 1984) ("Thus the law of copyrights defies the laws of logic . . . ").

^{127.} The reference in § 102(b) to "discoveries" implicitly disallows copyrighting facts. See supra note 66.

^{128. 17} U.S.C. § 103(a) (1994).

^{129. 17} U.S.C. § 101 (1994 & Supp. V 1999).

^{130.} Feist, 499 U.S. at 348.

^{131.} Id. at 349.

^{132.} *Id.* On the other hand, infringement requires only that the selection, coordination and arrangement be substantially similar; they need not be identical. Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc., 945 F.2d 509, 514 (2d Cir. 1991) ("[although copyright in compilations is] 'thin,' we do not believe it is anorexic").

without compensation," but it is, according to *Feist*, the very "essence of copyright," and what the Constitution itself requires:

The primary objective of copyright is not to reward the labor of authors, but "to promote the Progress of Science and useful Arts." To this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work. This principle, known as the idea/expression or fact/expression dichotomy, applies to all works of authorship. As applied to a factual compilation, assuming the absence of original written expression, only the compiler's selection and arrangement may be protected; the raw facts may be copied at will. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art. 134

In the remainder of Part III, I review how courts have dealt with factual or pseudo-factual compilations ¹³⁵ of various kinds. Some of these compilations, like the directories discussed in Part III.A, present rather unambiguous facts in rather obvious ways. Others, such as the works of conjecture and prediction discussed in Parts III.C-E, are based on the authors' more speculative notions of reality. In their various ways, these works present a common problem: when a work conveys, or purports to convey, information about the world beyond the inner workings of the author's imagination, what aspects of the work are properly subject to copyright, and what aspects, through the operation of the dichotomies already discussed, are properly given over to the public domain?

A. Directories

Although the Feist Court resolved to its satisfaction the abstract dilemma of copyrightable compilations of uncopyrightable facts, 136 it still had to determine

^{133.} Feist, 499 U.S. at 349 (quoting Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 589 (1985)).

^{134.} Id. at 349-50 (citations omitted). Relying solely on the incentive theory of copyright, the Court rejected any award of rights to fact compilers to compensate for their labors, or "sweat of the brow." Id. at 354 ("Without a doubt, the 'sweat of the brow' doctrine flouted basic copyright principles.").

^{135.} I use "compilation" here in a general sense, to mean any work or authorship in which facts are assembled. In some cases, such as telephone directories, any original authorship would have to reside in the selection, coordination and arrangement of facts, since the form allows few opportunities for the creative use of language. In works such as histories and biographies, language is a much larger part of the author's creative contribution.

^{136.} Feist, 499 U.S. at 350-51.

This, then, resolves the doctrinal tension: Copyright treats facts and factual compilations in a wholly consistent manner. Facts, whether alone or as part of a compilation, are not original and therefore may not be copyrighted. A factual

whether a white pages telephone directory met the standard of a copyrightable compilation. Section 101 does not say that *all* factual compilations are entitled to copyright, but only those wherein the facts are "selected, coordinated, or arranged *in such a way* that the resulting work as a whole constitutes an original work of authorship." This suggests that the facts included in some compilations may be "selected, coordinated, or arranged" in a manner that does *not* produce an "original work of authorship."

To require a high degree of artistry in the selection or arrangement of facts would be inconsistent with the low threshold of originality established in *Bleistein* and other cases. ¹³⁸ *Feist* reaffirms that the requirements of originality are, in fact, minimal:

[T]he originality requirement is not particularly stringent. A compiler may settle upon a selection or arrangement that others have used; novelty is not required. Originality requires only that the author make the selection or arrangement independently (i.e., without copying that selection or arrangement from another work), and that it display some minimal level of creativity. ¹³⁹

While "the vast majority of compilations will pass this test," there is still "a narrow category of works in which the creative spark is utterly lacking or so trivial as to be virtually nonexistent." In a copyrightable compilation, "the selection and arrangement of facts cannot be so mechanical or routine as to require no creativity whatsoever." The Court found the selection and organization of materials in the alphabetically-ordered white pages directory so routine as to be utterly lacking in creativity, thereby disqualifying the directory as a copyrightable work of authorship. 142

A number of other directories have been tested under the Feist standard of originality. In Key Publications, Inc. v. Chinatown Today Publishing Enterprises, Inc., 143 the Second Circuit considered whether a "Chinese yellow pages" telephone directory met the standard of originality. Whereas the Feist white pages directory had merely listed telephone subscribers in alphabetical order, the Key directory, like other yellow pages directories, listed businesses

compilation is eligible for copyright if it features an original selection or arrangement of facts, but the copyright is limited to the particular selection or arrangement. In no event may copyright extend to the facts themselves.

Id.

^{137. 17} U.S.C. § 101 (1994 & Supp. V 1999) (emphasis added).

^{138.} See supra notes 103-106 and accompanying text,

^{139.} Feist, 499 U.S. at 358.

^{140.} Id. at 359.

^{141.} Id. at 362.

^{142.} Id.

^{143. 945} F.2d 509 (2d Cir. 1991).

by category. ¹⁴⁴ In this case, the businesses and categories had been chosen with regard to the needs and interests of the Chinese community. ¹⁴⁵ The directory, for example, included listings under the category of "Bean Curd and Bean Sprout Shops." ¹⁴⁶ Although the court found no infringement, it did find the directory sufficiently original to be copyrighted. ¹⁴⁷ In contrast to the directory in *Feist*, where every telephone subscriber in the area had been included, the Chinese directory included only those businesses that the compiler, in the exercise of her judgment, considered most appropriate for her audience:

In assembling the directory, Ms. Wang had to select from a multitude of businesses in New York and elsewhere those of greatest interest to her audience—the New York City Chinese-American community Ms. Wang testified that she excluded from the directory those businesses she did not think would remain open for very long, such as certain insurance brokers, take-out restaurants, and traditional Chinese medical practitioners. ¹⁴⁸

The choice of categories to include and how they should be named also required the exercise of creativity. These acts of selection and judgment were found sufficient to render the compilation "original." 150

In BellSouth Advertising & Publishing Corp. v. Donnelley Information Publishing,¹⁵¹ the Eleventh Circuit considered a more conventional yellow pages and found its "selection, coordination and arrangement" lacking in originality. Although businesses were organized by category, the court held those categories to be "entirely typical" of yellow pages directories, ¹⁵² or, in the characterization of Feist, "not only unoriginal, [but] practically inevitable." The choice of which businesses to list under which categories

^{144.} Id. at 512.

^{145.} Id. at 514.

^{146.} Id.

^{147.} Id. at 512-14.

^{148.} Id. at 513.

^{149.} Id. at 514.

^{150.} Id. Similar circumstances led to a similar result in J.R. O'Dwyer Co. v. Editorial Media Marketing International, Inc., 755 F. Supp. 599 (S.D.N.Y. 1991). J.R. O'Dwyer concerned a directory of public relations firms. Id. at 601. The selection of firms to include in the directory had not been "routine" or "mechanical," but had depended on the subjective judgment of Mr. O'Dwyer. See id. He included any firm that subscribed to his newsletter, any firm that paid for the privilege, and some firms that declined to pay but which he considered "too important to omit." Id. He also endeavored to include only firms that he considered "true PR firms." Id. at 605. The selection of firms, he claimed, lay "at the heart of his creative effort." Id. The court agreed, holding that O'Dwyer's "inclusion of certain publicity-averse firms and his solicitation of listings from many other firms does constitute sufficient authorship to render his listings a copyrightable compilation." Id.

^{151. 999} F.2d 1436 (11th Cir. 1993) (en banc).

^{152.} Id. at 1442.

^{153.} Id. (quoting Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 363 (1991)).

had been based, in significant part, on the preferences of *customers* and their willingness to pay, and so could not be considered an "original" selection. ¹⁵⁴ The plaintiff had employed distinctive and creative marketing techniques, which ultimately influenced the contents of the directory, ¹⁵⁵ but the court characterized these marketing techniques as "not acts of authorship, but techniques for the discovery of facts." ¹⁵⁶ To find "originality" in such techniques, however innovative, would contradict the *Feist* distinction between "creation" and "discovery." ¹⁵⁷

By employing its sales strategies, [plaintiff] discovered that certain subscribers describe their businesses in a particular fashion and were willing to pay for a certain number of listings under certain available business descriptions. To be sure, [plaintiff] employed a set of strategies or techniques for discovering this data. Any useful collection of facts, however, will be structured by a number of decisions regarding the optimal manner in which to collect the pertinent data in the most efficient and accurate manner. If this were sufficient, then the protection of copyright would extend to census data, cited in *Feist* as a paradigmatic example of a work that lacks the requisite originality. Just as the Copyright Act does not protect "industrious collection," it affords no shelter to the resourceful, efficient, or creative collector. The protection of copyright must inhere in a creatively original *selection* of facts to be reported and not in the creative means used to discover those facts.¹⁵⁸

In other words, it is not enough for the author of a factual compilation to be clever; rather, the author must be clever (or, at least, minimally creative) in the presentation of the facts, if the compilation is to be considered "original."

One of the most difficult of the directory cases is Warren Publications, Inc. v. Microdos Data Corp., 159 also from the Eleventh Circuit. The work at issue

^{154.} *Id.* at 1444. "While [plaintiff] may select the headings that are *offered* to the subscriber, it is the *subscriber* who *selects* from those alternatives the headings under which the subscriber will appear in the copyrighted directory. The headings that actually appear in the directory thus, do not owe their origin to [plaintiff]..." *Id.*

^{155.} These included:

the determination of the number of free listings offered to each subscriber, the selection of which customers to contact by an on-premise visit from sales personnel, the selection of the date of commencement of its advertisement sales campaign, and the procedure used to recommend the purchase of listings under multiple headings.

Id. at 1441.

^{156.} Id.

^{157.} Id.

^{158.} Id. (citations omitted).

^{159. 115} F.3d 1509 (11th Cir. 1997).

was a directory of cable television systems, ¹⁶⁰ "system" defined by Warren as "an entity offering subscribers in one or more communities the same cable services for the same price." The directory included a section for each state, and within each section a listing of communities in that state, arranged alphabetically. ¹⁶² Because many of the systems served multiple communities, and listing the same information under the heading of each community would have been duplicative, Warren listed the pertinent information for each system only under the heading of the "principal" community, with cross-references under the heading of the other communities. ¹⁶³ The "principal" communities were selected by the operators of each cable system. ¹⁶⁴ The district court granted partial summary judgment, holding Warren's organization sufficiently "original" to merit copyright protection under Feist. ¹⁶⁵ The Eleventh Circuit reversed.

As to the "selection" of the information presented, the court found that Warren had included all of the communities of which it was aware. 166 In that respect, the directory was closer to the all-inclusive listing held unoriginal in Feist than the more selective listing in Key. 167 The selection of the "principal communities" was also unavailing, since that selection had been made by the cable system operators, rather than Warren. 168 Consequently, Warren's best claim of "originality" lay in its general plan of organizing information by principal communities, rather than in some other fashion. The court dismissed that argument as well, holding that if Warren's plan of organizing data was a "system," as the district court had termed it, then permitting Warren exclusive rights to that "system" would contradict § 102(b) of the Copyright Act. 169 Even if Warren's plan was not a "system" within the meaning of the statute, its usefulness denied it the status of an "original" creation. The court described Warren's decision to use "principal communities" as a decision "to make the [directory] commercially useful,"170 and held that "[t]he mere discovery of an organizing principle which is dictated by the market is not sufficient to

^{160.} *Id.* at 1512. The directory contained "extensive information on cable systems, including, *inter alia*, the name, address, and telephone number of the cable system operator, the number of subscribers, the channels offered, the price of service, and the types of equipment used." *Id.*

^{161.} Id. at 1517.

^{162.} Id. at 1512.

^{163.} Id.

^{164.} Id. at 1517, 1519.

^{165.} Id. at 1511.

^{166.} Id. at 1518 ("[Warren] did not exercise any creativity or judgment in 'selecting' cable systems to include in its Factbook, but rather included the entire relevant universe known to it.").

^{167.} Id. at 1518-19.

^{168.} Id. at 1519 (drawing a parallel to the similar circumstances in BellSouth Advertising & Publishing Corp. v. Donnelley Information Publishing, 999 F.2d 1436 (1993)).

^{169.} Id. at 1517. Section 102(b) prohibits the extension of copyright to "any idea, procedure, process, system, method of operation, concept, principle, or discovery." 17 U.S.C. § 102(b) (1994). 170. Id. at 1518.

establish creativity."¹⁷¹ In terms of the line drawn in *Feist*, a system of organization that serves the needs of the market is a "discovery" rather than a "creation."¹⁷²

The majority's decision prompted a strong dissent by three judges, who argued that Warren had made a series of choices regarding the presentation of the cable system information, which in aggregate were sufficiently creative to meet the low threshold of originality:

The acts of selection carried out by Warren were a stream of events, beginning with its choice of the facts it wanted and the construct of a functional methodology in which to develop and present them. The use of a geographic name for each cable system, and the choice of the names of principal communities as identifiers, and the decision on a particular name, were not isolated acts of selection like Athena springing full grown from the brow of Zeus, or a decision made by a snap of someone's fingers, or a mechanical decision from a single telephone call, or by numerous calls. They were parts of the stream of acts of selection.... This court does not, however, refer to Warren's exercise of judgment in creating this structure of selection and in choosing the facts to be reported and how to report them. Yet these acts of selection are independent expressions of the author, part of the overall "work of authorship." This court does not hold them to be unoriginal or non-creative. Instead, it ignores them and treats this case as turning on the single fact of the source of information about principal communities. This trivializes what this case is about. 173

Warren is a difficult case because it raises questions under each of the "dichotomies" discussed in Part II. Organizing information by principal communities undoubtedly serves a useful function, at least in reducing the bulk of the directory, so one might conclude, under Baker, that such a practical system should be beyond the scope of copyright. On the other hand, the author of the directory in Key based her selections on what she considered most "useful" to her audience, 175 as would the authors of most factual compilations. To deny copyright to any "selection, coordination or arrangement" of facts which is useful would deny copyright to most factual compilations, contrary to the clear intentions of Feist, 176 or would, at the very least, provide the authors of such works with perverse incentives. Application

^{171.} Id. at 1520 n.31.

^{172.} See id.

^{173.} Id. at 1527-28 (Godbold, J., dissenting).

^{174.} See supra Part II.C.

^{175.} See supra notes 143-148 and accompanying text.

^{176.} See Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344 (1991) (describing as a "well-established proposition" the principle that "compilations of facts generally are [copyrightable]").

of the fact/expression dichotomy¹⁷⁷ is equally problematic. The identity of the principal community in each system might be considered a "fact," even if based on the opinion of the system operators. ¹⁷⁸ It is more difficult to characterize Warren's organizational scheme itself as a "fact." The majority appears to treat it as a fact, because it best suits the needs of the market, and is therefore, in some sense, "discoverable." But one can argue that organizational schemes are always imposed on the world, rather than discovered in it, so they are "creations" more than they are "discoveries." These issues arise more explicitly in the case of taxonomies, discussed in Part III.B.

Perhaps the best way to analyze the facts of *Warren* is under the rubric of the idea/expression dichotomy. The dissent characterizes Warren's directory as the product of a series of choices, beginning with the "choice of facts it wanted." One could say that Warren's first choice was to produce a directory of cable systems, rather than a directory of Italian restaurants or internet websites. However, many of Warren's more general choices must have been choices of *ideas* to pursue, rather than choices of how to *express* those ideas. As already discussed, the line between idea and expression is a difficult one to draw, and depends primarily on the court's intuitive understanding of the most fruitful competitive balance. Given what are likely to be a limited number of reasonable ways in which to organize a cable system directory, it would be reasonable to treat Warren's organizing principle as an unprotectable idea, thereby circumventing the more difficult to apply fact/expression and process/expression dichotomies.

B. Taxonomies

The issues hinted at in Warren were more squarely presented in American Dental Ass'n v. Delta Dental Plans Ass'n, 183 which concerned the copyrightability of "taxonomies." A "taxonomy" is a system of grouping and describing differing objects or phenomena. 184 A taxonomy of baseball cards might group them by manufacturer, then by year, by team, by player position

^{177.} See supra Part II.B.

^{178.} See infra Part IV.A.

^{179.} See supra Part II.A.

^{180.} Warren Publ'ns, Inc. v. Microdos Data Corp., 115 F.3d 1509, 1527 (11th Cir. 1997) (Godbold, J., dissenting).

^{181.} See supra notes 49-51 and accompanying text.

^{182.} See supra notes 60-64 and accompanying text (discussing "merger").

^{183. 126} F.3d 977 (7th Cir. 1997).

^{184.} *Id.* at 980. Or, in the definition provided by Webster's Third International Dictionary—"the systematic distinguishing, ordering, and naming of type groups within a subject field." WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 2345 (1993).

that any card could be classified-e.g., and SO Topps/1989/Yankees/Outfielders. In American Dental, the taxonomy took the form of a uniform "Code on Dental Procedures and Nomenclature," devised for convenience in billing and insurance processing. 185 The Code grouped procedures by type and included a number and brief description for each e.g., "04267 'guided tissue regeneration—nonresorbable barrier, per site, per tooth (includes membrane removal)."186 The defendant, Delta Dental, claimed the right to reprint modified versions of the code, without the permission of the Code's author, the American Dental Association. 187

The district court considered the element of "creativity" required of an original work of authorship, ¹⁸⁸ and found that it involved a measure of "imagination." ¹⁸⁹ "Imagination" is defined as "the power which the mind has of forming concepts beyond those derived from external objects." ¹⁹⁰ The concept of a horse, said the court, is not imaginative because horses exist in the world and are observable through the senses. ¹⁹¹ Even the concept of a unicorn is not particularly imaginative, since examples "exist in literature and art." ¹⁹² A horse with *three* horns would be truly imaginative, because until the court "made it up just now," such an animal "probably . . existed in neither nature nor art." ¹⁹³ To limit "imagination," and hence "creativity," to "[o]nly the fantastic, the yet unimagined" would, however, "have the practical effect of excluding the great bulk of materials submitted for copyright protection." ¹⁹⁴ Hence the court proposed a novel (one could even say "imaginative") analysis for testing the originality of less fanciful works:

Perhaps it is better to think about creativity (and therefore imagination) as that element which remains when form is separated from function. In other words, isolating the merely useful (i.e., those things which are solely about function) from those things which are useful plus something else (i.e., those things which can be appreciated for some quality aside from their utility). This paradigm

^{185.} Am. Dental, 126 F.3d at 977.

^{186.} Id.

^{187.} Id. at 977-78.

^{188.} Am. Dental Ass'n v. Delta Dental Plans Ass'n., No. 92-C5909, 1996 U.S. Dist. LEXIS 5809, at *22 (N.D. Ill. Apr. 25, 1996).

^{189. &}quot;Imagination is the standard touchstone of creativity." Id.

^{190.} Id. at *23 (quoting 7 OXFORD ENGLISH DICTIONARY 669). An alternative definition of "imagination" would limit it to "the creative faculty of the mind in its highest aspect; the power of framing new and striking intellectual conceptions; poetic genius." Id. (quoting 7 OXFORD ENGLISH DICTIONARY 669). The court acknowledged that "[i]f copyrightability were dependent on qualities of poetic genius, the body of material suitable for copyright would be slim indeed." Id.

^{191.} Id. at *24.

^{192.} Id.

^{193.} Id.

^{194.} *Id*.

essentially boils down to a distinction between means and ends. Is the material merely a means to some end, or is it an end in itself?

Consider a lamp. A lamp's primary function is to provide light; thus it may be said to be the means (bulb, switch, electricity) to a particular end (illumination). But a lamp may also be an end in itself—an object that can stand on its own after its utility is factored out—as may be seen in the multicolored leaded-glass mosaic lamps designed by Louis Comfort Tiffany, which provide a degree of aesthetic pleasure aside from their illuminative capacities. A Tiffany lamp exemplifies what I mean when I say "useful plus." Remove the "useful," and some "plus" remains. That remaining "plus" is the creative, imaginative component deserving of copyright protection. If, on the other hand, nothing remains after the "useful" is taken away—if the primary function is removed from the form—the work is devoid of even that modicum of creativity required for protection, and hence is uncopyrightable. 195

The court called its approach a "means/ends analysis." It borrows, to some extent, from the analysis applied to "useful articles," which are copyrightable if, but only if, the "design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article." In the version the court proposed for literary works, one would ask whether the work merely served a function, or whether it could be appreciated on its own account. An entirely functional work would fail the test of creativity. Moreover, "if the *primary purpose* of a factual compilation is not to entertain, express, incite, inform, educate, etc., but these effects occur anyway, they may be considered simply noncreative byproducts of the work's main purpose of accomplishing a specific task." 199

^{195.} Id. at *25.

^{196.} Id. at *26.

^{197. &}quot;A 'useful article' is an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information." 17 U.S.C. § 101 (1994 & Supp. V 1999).

^{198.} Id. Since 'separability' may be conceptual rather than physical, the copyright analysis of useful articles can be particularly vexing. See Brandir Int'l, Inc. v. Cascade Pac. Lumber Co., 834 F.2d 1142 (2d Cir. 1987); Barry Kieselstein-Cord v. Accessories by Pearl, Inc., 632 F.2d 989 (2d Cir. 1980)

^{199.} Am. Dental, 1996 U.S. Dist. LEXIS 5809, at *28 (emphasis added). The court characterized its means/ends analysis as a "refined shortcut" of the analysis suggested in Feist. Id. at *30. Yet the court's denial of copyright to works having a utilitarian "primary purpose" seems contrary to the supposition of Feist that the vast majority of factual compilations are copyrightable, as well as the long tradition of copyrighting maps and charts, the "primary purpose" of which is seldom aesthetic. In addition to its means/ends analysis, the court also applied what it deemed a conventional Feist analysis of selection, coordination and arrangement and still found the Code lacking in originality. Id. at *29-30.

The court offered a standard eye chart as an example of a work lacking in originality, applying the court's means/ends distinction: "Remove the function, and the creative component of the form is negligible; there is no imaginative 'plus' that reasonably warrants copyright protection." Turning its means/ends analysis to the code of dental procedures, the court found no creativity: "The primary purpose behind the Code is administrative convenience: making billing easier for dentists, their clients, and insurance companies . . . The Code is intended solely as the means to an end (administrative efficiency), not an end in and of itself." The kind of aesthetic "plus" that makes a Tiffany lamp more than a light source is not to be found in the Code.

On appeal, the Seventh Circuit rejected the district court's analysis.²⁰³ As urged by the American Medical Association, the American National Standards Institute, the Underwriter Laboratories and similar groups,²⁰⁴ the court held that taxonomies, useful or not,²⁰⁵ are creative efforts worthy of copyright.²⁰⁶

200. Id. at *29.

It would be facetious to argue that the primary purpose of such a chart is to entertain or to provoke rigorous debate or to communicate useful information. The raison d'être for an eye chart is one of mere utility: testing vision. It is the means to an end, not an end in itself.

Id.

201. Id. at *32.

202. Id.

Yes, theoretically you could frame a copy of the Code and place it on the wall for decorative purposes; or read it to your children at bedtime to entertain them. But to argue such uses as the Code's primary purpose is risible: the entire history of the Code shows it was meant to be utilized, not enjoyed on any aesthetic or educative level.

Id. The district court also disparaged the notion of creativity in a work prepared by committee: Creativity is, by and large, the province of the individual [W]here does that leave those works which are the result of collaboration? Is "creation by committee" an oxymoron? If too many cooks are deemed to spoil the broth, the reason might be that in art, if not in life, more is less; the more participants that contribute, the less individual—and therefore the less personal—the result. Collectivism, by its very nature, necessitates dilution of the individual creative impulse.

Id. at *46.

203. Am. Dental Ass'n v. Delta Dental Plans Ass'n, 126 F.3d 977, 978-79 (7th Cir. 1997).

204 Id at 978

205. The court observed that many useful works, such as blueprints, instruction manuals, encyclopedias and maps, would "flunk the district court's test of originality." *Id.* "Yet these items are routinely copyrighted, and challenges to the validity of these copyrights are routinely rejected." *Id.* Significantly,

Very little computer software could receive a copyright if the district judge is correct: no one reads, for pleasure, the source or object code of the word processing program on which this opinion was written, or of the operating system that runs the computer: take away the "useful" elements and these endeavors are worthless.

Just as a scientist may copyright a description of the world (though not the facts per se), "[s]o too with a taxonomy—of butterflies, legal citations, or dental procedures."²⁰⁷

Classification is a creative endeavor. Butterflies may be grouped by their color, or the shape of their wings, or their feeding or breeding habits, or their habitats, or the attributes of their caterpillars, or the sequence of their DNA; each scheme of classification could be expressed in multiple ways. Dental procedures could be classified by complexity, or by the tools necessary to perform them, or by the parts of the mouth involved, or by the anesthesia employed, or in any of a dozen different ways. The Code's descriptions don't "merge with the facts" any more than a scientific description of butterfly attributes is part of a butterfly. There can be multiple, and equally original, biographies of the same person's life, and multiple original taxonomies of a field of knowledge.²⁰⁸

A taxonomy is a "creation," not a "discovery;" to paraphrase Rorty: The world is not organized. Only we are. To some extent a taxonomy must conform to reality, or it would poorly serve its admittedly utilitarian purpose. However, reality still leaves taxonomers with ample freedom to organize and describe the world in individual and creative ways. With respect to the Code:

Number 04267 reads "guided tissue regeneration—nonresorbable barrier, per site, per tooth" but could have read "regeneration of tissue, guided by nonresorbable barrier, one site and tooth per entry". Or "use of barrier to guide regeneration of tissue, without regard to the number of sites per tooth and whether or not the barrier is resorbable". The first variation is linguistic, the second substantive; in each case the decision to use the actual description is original to the ADA, not knuckling under to an order imposed on language by some "fact" about dental procedures. Blood is shed in the ADA's committees about which description is preferable.²¹¹

A taxonomy, in the Seventh Circuit's view, is not a "compilation of bits and pieces of 'reality," but a *description* of reality. Like other descriptions of reality (histories, biographies, maps or scientific treatises), taxonomies are

^{206.} Id. at 979-80.

^{207.} Id. at 979.

^{208.} Id. (citation omitted).

^{209.} See RORTY, supra note 1 and accompanying text.

^{210.} Am. Dental, 126 F.3d at 978 ("No one would read the ADA's Code for pleasure; it was designed and is used for business (for records of patients' dental history or making insurance claims) rather than aesthetic purposes.").

^{211.} Id. at 979.

^{212.} Id. at 980.

original and copyrightable, at least as long as other descriptions of reality serve equally well. ²¹³

C. Conjecture

The fact/expression dichotomy is easiest to apply when the fact is reasonably objective—such as the population of Princeton, New Jersey in 1970. A fact of that nature depends to some extent on the person who reports it, since one census taker may be more accurate than another, or may define "population," "Princeton" or "1970" in a different manner. 214 However, there are still truths about the population of Princeton, New Jersey which may owe their discovery, but do not "owe their origin," to the census taker. Those truths are not subject to copyright, though an author's manner of expressing them may be. 215

The harder cases are those in which the "fact" is really a theory. Even if the theory is presented as truth, it may be based as much on the author's imagination as it is on independently verifiable data. One could more plausibly argue that a theory "owes its origin" to the author, but at least with respect to historical accounts, courts have treated conjecture in the same manner as "hard facts." In *Hoehling v. Universal City Studios, Inc.*, ²¹⁶ the plaintiff devised a theory that the Hindenburg dirigible had been sabotaged by a crewman named Eric Spehl. ²¹⁷ That theory, which was the product of extensive research ²¹⁸ but also some speculation, served as the framework for the plaintiff's written account, entitled "Who Destroyed the Hindenburg?" ²¹⁹ Ten years later, a second author produced a more literary retelling of the same

^{213.} In National Council of Compensation Insurance, Inc. v. Insurance Data Resources, Inc., No. 96-8036-Civ-Ryskamp, 1996 U.S. Dist. LEXIS 17343 (S.D. Fla. Oct. 3, 1996), a Florida district court held uncopyrightable a similar taxonomy of "job codes" related to workers' compensation claims. The court described the taxonomy as "a straightforward alphabetical listing of classifications of workers, a descriptive and non-creative identification of the type of workers to be included in each class, and a numerical code assigned to each class." Id. at *11. The court did not find the creativity or originality required to make the taxonomy a copyrightable work of authorship. Id. at *13. See also Duffy v. Penguin Books USA Inc., 4 F. Supp. 2d 268, 273 (S.D.N.Y. 1998) (holding that a fashion writer's scheme of categorizing women's bodies into four types is uncopyrightable).

^{214.} See infra notes 337-338 and accompanying text.

^{215.} See supra notes 94-96 and accompanying text.

^{216. 618} F.2d 972 (2d Cir. 1980).

^{217.} Id. at 975.

^{218.} Id. "Mr. Hoehling studied the investigative reports, consulted previously published articles and books, and conducted interviews with survivors of the crash as well as others who possessed information about the Hindenburg." Id. Hoehling's theory was "based entirely on the interpretation of historical facts, including Spehl's life, his girlfriend's anti-Nazi connections, the explosion's origin in Gas Cell 4, Spehl's duty station, discovery of a dry-cell battery among the wreckage, and rumors about Spehl's involvement dating from a 1938 Gestapo investigation." Id. at 978-79.

^{219.} Id. at 975.

events, employing the same theory as to the saboteur.²²⁰ Universal Studios adapted the latter book for a motion picture.²²¹

Although the sabotage theory was novel, the court denied it any copyright protection:

[T]he protection afforded the copyright holder has never extended to history, be it documented fact or explanatory hypothesis. The rationale for this doctrine is that the cause of knowledge is best served when history is the common property of all, and each generation remains free to draw upon the discoveries and insights of the past. Accordingly, the scope of copyright in historical accounts is narrow indeed, embracing no more than the author's original expression of particular facts and theories already in the public domain. 222

The court feared the "chilling effect" that would ensue if authors of histories were not given "broad latitude" to make use of theories and interpretations advanced by their predecessors. ²²³

In a similar case, the Seventh Circuit denied an author exclusive rights to his theory that gangster John Dillinger survived long after his supposed demise. That theory, first advanced in books published by the plaintiff, rested on discrepancies in the generally-accepted accounts of Dillinger's death by gunfire in 1934. An episode of CBS's Simon and Simon television series toyed with the same premise. In an opinion by Judge Easterbrook, the court noted that intellectual advancement requires authors to "build[] on the work of others," and it refused to treat the Dillinger theory differently merely because it was novel and speculative:

Nash does not portray *The Dillinger Dossier* and its companion works as fiction... which makes all the difference. The inventor of Sherlock Holmes controls that character's fate while the copyright lasts; the first person to conclude that Dillinger survived does not get dibs on history. If Dillinger survived, that fact is available to all. Nash's rights lie in his expression: in his words, in his arrangement

^{220.} Id. at 975-76.

^{221.} Id. at 976.

^{222.} Id. at 974. See also Robert A. Gorman, Fact or Fancy? The Implications for Copyright, 29 J. COPYRIGHT SOC'Y 560, 591 (1982) (imagining a theory of history—that Jones, rather than Booth, assassinated Lincoln—so original that it qualifies as "novel" and "bear[s] much more [than the mere unearthing of an artifact] the individual stamp of the historian's own wit and imagination," but concluding that such a theory should not be copyrightable: "The hypothesis . . . purports to be an inference about an actual historical event; whether rooted in circumstantial or direct evidence, it is essentially a 'discovery' which § 102(b) declares to fall outside the protection of copyright.").

^{223.} Hoehling, 618 F.2d at 978.

^{224.} Nash v. CBS, Inc., 899 F.2d 1537, 1538 (7th Cir. 1990).

^{225.} Id. at 1538.

^{226.} Id.

of facts (his deployment of narration interspersed with interviews, for example), but not in the naked "truth." 227

If an author presents a theory as fact, it is perhaps only reasonable to treat it as a fact, however improbable it may be. 228 Taking the author at his word also

228. Authors of factual works sometimes include "facts" known to be false. Mapmakers, for example, are known to include fictional towns and streets in out-of-the-way corners. These "copyright traps" provide convenient and irrefutable evidence of copying. Such "facts" are original in the copyright sense, since they have their origin in the author's imagination, but courts have treated false facts in the same manner as true facts. In Nester's Map & Guide Corp. v. Hagstrom Map Co., 796 F. Supp. 729 (E.D.N.Y. 1992), for example, the plaintiff published a guide to New York City for taxi drivers, in which many of the street addresses were merely approximate. Id. at 731-33. The addresses were changed "in order both to detect copying and to make them easier to remember." Id. at 732-33. Nester argued that "since these numbers are invented, they should be copyrightable like other works of fiction." Id. at 733. Employing a theory of "copyright estoppel," the court barred Nester from relying on its imaginary "facts":

To treat "false" facts interspersed among actual facts and represented as actual facts as fiction would mean that no one could ever reproduce or copy actual facts without risk of reproducing a false fact and thereby violating a copyright. If such were the law, information could never be reproduced or widely disseminated.

Id.; see also Houts v. Universal City Studios, Inc., 603 F. Supp. 26, 28 (C.D. Cal. 1984) ("Under the doctrine of copyright estoppel, once a plaintiff's work has been held out to the public as factual the author-plaintiff cannot then claim that the book is, in actuality, fiction and thus entitled to the higher protection allowed to fictional works."); Skinder-Strauss Assocs. v. Mass. Continuing Legal Educ., Inc., 914 F. Supp. 665, 675-76 (D. Mass. 1995) ("If copying true facts is permissible, it is immaterial whether [the defendant] copied false facts or 'seeds' [referring to fictitious attorney names inserted into a legal directory for the express purpose of detecting copying]."); Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344 (1991) (referring to fictitious listings in the copied telephone directory).

This treatment of "false facts" does not extend to genuine works of fiction, as the defendant discovered in Castle Rock Entertainment v. Carol Publishing Group, Inc., 955 F. Supp. 260 (S.D.N.Y. 1997). The defendant published a quiz book, called the Seinfeld Aptitude Test, or "SAT," based on the characters and events of the popular television series. Id. at 261-62. The defendant claimed that it had copied no expression, but only "uncopyrightable facts about the Seinfeld show." Id. at 266. The court rejected the "false premise":

SAT does not pose "factual" questions about the Seinfeld show; it does not ask who acts in the program, who directs or produces the show, how many seasons it has run, etc. Instead, SAT poses questions about the events depicted during episodes of the Seinfeld show. The facts depicted in a Seinfeld episode, however, are quite unlike the facts depicted in a biography, historical text, or compilation. Seinfeld is fiction; both the "facts" in the various Seinfeld episodes, and the expression of those facts, are plaintiffs creation. . . . [B]y copying "facts" that plaintiff invented, SAT "appropriate[s] [plaintiffs] original contributions." Thus, to find in defendant's favor merely by rote application of the rule against affording copyright protection to facts would be to divorce that rule from its underlying rationale. Simply put, and of most direct concern under the Copyright Act, defendants have appropriated original elements of plaintiffs work.

Id. at 266 (citation omitted). One can always characterize the elements of a work of fiction as facts about the work. In that sense, it is a "fact" that Hamlet speaks to the ghost of his father, since it is a fact that Shakespeare's play includes such a scene. However, such "facts" are both original to the author and inseparable from the author's expression. The difference between false facts and "fictional

^{227.} Id. at 1541.

relieves the court of the burden of deciding whether a theory is true, or merely a product of the author's imagination. 229

D. Matters of Opinion

Some propositions are either true or false. Although the truth may never be known, and forgetting for the moment the quantum-physics limbo endured by Shroedinger's cat, we can be confident that John Dillinger either did or did not die in 1934, and Eric Spehl either did or did not sabotage the Hindenburg. We cannot say, in the same way, that "Ozymandius" is or is not a great poem; that is a matter of taste, not a matter of fact. Selections based on an author's taste have been treated as protectable expression. ²³⁰

In Eckes v. Card Prices Update, ²³¹ the Second Circuit held a baseball card price guide to be an original work of authorship. ²³² With entries for

facts" is one of presentation. The first are presented as truths about the world, and courts treat them as such; the latter are presented as expressions of the author's fancy, and courts properly afford them the protections that the copyright laws intend. Some works of fiction, such as Umberto Eco's *The Name of the Rose* and the recent film *The Blair Witch Project*, purport to be factual works based on discovered material. A thin veneer of authenticity applied for artistic purposes may assist in the suspension of disbelief, but only the most gullible would be deceived. It is unlikely that a court would treat such works as factual.

229. See Hoehling v. Universal City Studios, Inc., 618 F.2d 972, 979 (2d Cir. 1980) ("The cases in this circuit . . . make clear that factual information is in the public domain. Each appellee had the right to 'avail himself of the facts contained' in Hoehling's book and to 'use such information, whether correct or incorrect, in his own literary work." (emphasis added) (citations omitted)). In Urantia Foundation v. Maaherra, 114 F.3d 955 (9th Cir. 1997), the Ninth Circuit considered whether the revelations of "celestial beings" were an appropriate subject matter for copyright. Id. at 956. Although the court may have doubted the origin and accuracy of these revelations, the court treated them as authentic—as both the plaintiff and the defendant in the case had done. Id. at 958. That raised certain problems for the plaintiff, analogous to those suffered by authors who promote their theories as "the truth." "At the very least, for a worldly entity to be guilty of infringing a copyright, that entity must have copied something created by another worldly entity." Id. Nevertheless, the court found the selection and arrangement of revelations sufficient to render the plaintiff's work original. Id. at 959.

230. See Dow Jones & Co. v. Bd. of Trade, 546 F. Supp. 113, 115 (S.D.N.Y. 1982) ("Some directories are considered original works because of the labor expended in their preparation. Other compilations, however, are protected because the author exercised subjective judgment and selectivity in choosing items to list." (citation omitted)). Dow Jones refers to two cases protecting factual compilations based on the "subjective judgment" involved in their assembly. Id. Both, however, appear to rest on pre-Feist "sweat of the brow" prohibitions. See supra note 134. One case, List Pub. Co. v. Keller, 30 F. 772 (S.D.N.Y 1887), concerned a society directory listing persons "supposed to be people of fashion." Id. at 772. The court observed that the defendant had "no right to take, for the purposes of a rival publication, the results of the labor and expense incurred by the complainant." Id. at 773. The other case, Adventures in Good Eating, Inc. v. Best Places to Eat, Inc., 131 F.2d 809 (7th Cir. 1942), involved, as one would imagine, a directory of quality restaurants. Id. at 811. As in List Pub., the court suggested that any directory can be duplicated only if the newcomer works "from scratch," as opposed to taking advantage of the first author's labor. Id. at 812-13.

^{231. 736} F.2d 859 (2d Cir. 1984).

^{232.} Id. at 863.

approximately 18,000 cards, Eckes' guide was "a comprehensive listing of baseball cards manufactured . . . from 1909 to 1979." The author, James Beckett, selected 5,000 of those cards as "premium" cards commanding a correspondingly premium price. In distinguishing between the "premium" and the "common," Beckett "rel[ied] on his extensive knowledge of trading in baseball cards and his background in statistics." The defendant's guide, styled a price "update," listed separately only premium cards, but those cards were the same 5,000 selected in the Eckes guide. The defendant also duplicated some of the prices, pictures, and mistakes in the original. Conceding that "[c]opyright law and compilations are uneasy bedfellows," the court held that the "selection" of premium cards in the Eckes guide merited copyright protection. The court concluded that Beckett "exercised selection, creativity and judgment in choosing among the 18,000 or so different baseball cards in order to determine which were the 5,000 premium cards."

Eckes is noteworthy in two respects. First, the court refers to Beckett's creative "selection" of premium cards, echoing the language of the Copyright Act which 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 a whole constitutes an original work of authorship." The definition would apply to collections such as "Favorite Poems" or "Healthy Recipes," where authors exercise their creativity by choosing what to include. Beckett's guide, however, seems to have been a comprehensive one, listing all baseball cards produced in a given period. Beckett did not "select" certain cards for inclusion in the guide, but rather "selected" certain cards as worthy of "premium" status. It is not self-

[T]hey are considered particularly valuable because of the player featured on the card, e.g., a hall of famer, a rookie of the year, or because of the team on which he plays, or because of some characteristic of the card itself, such as an imperfection or the scarcity of the card.

Id.

^{233.} Id. at 860.

^{234.} Id. at 860.

^{235.} Id.

^{236.} Id. at 860-61.

^{237.} Id. at 861.

^{238.} Id. at 862.

^{239.} *Id.* at 862-63. Employing a double negative, the court observed: "[O]ur cases do not hold that subjective selection and arrangement of information does not merit protection. In fact, the definition of a compilation in the Act, the commentators, and the cases, suggest that selectivity in including otherwise non-protected information can be protected expression." *Id.* (citations omitted).

^{240.} Id. at 863.

^{241. 17} U.S.C. § 101 (1994 & Supp. V 1999) (emphasis added).

^{242.} Eckes, 736 F.2d at 860.

^{243.} Id.

evident that this is the kind of "selection" contemplated in the statute.²⁴⁴ On the other hand, if the question is one of *creativity*, whether Beckett excluded common cards from the collection or merely labeled them as such seems to make no difference.

Second, if Beckett had selected as "premium" cards those which gave him the greatest pleasure, or if in some other way he had employed entirely subjective criteria, one could easily say that the selection "owes its origin" to the author. 245 But Beckett's selection of "premium" cards was determined in part by the marketplace—hence the need to exercise his "extensive knowledge of trading in baseball cards and his background in statistics."²⁴⁶ Market price is a factor largely external to Beckett: 247 consequently, one could question whether his selection was "original" in the copyright sense. An accurate assessment of the market no doubt requires judgment and experience, and the results may be speculative, but the same considerations apply to theories of history which, as we have seen, have been held lacking in originality. ²⁴⁸ Still. the result in Eckes may be correct. If baseball cards command a range of prices, as one assumes they do, Beckett must have drawn the line between "premium" and "common" somewhat arbitrarily. 249 If so, one could argue that even if card prices are facts external to Beckett, the distinction between "premium" and "common" "has its origins" with Beckett. Because a different distinction might have made the guide less useful or appealing, it is also a choice related to form and presentation as well as content.

Later cases adopting the result of *Eckes* seem oblivious to its difficulties. The Second Circuit considered the copyrightability of the Red Book guide to used car prices in *CCC Information Services, Inc. v. Maclean Hunter Market Reports, Inc.*²⁵⁰ The defendant duplicated large portions of the Red Book data in its own database, ²⁵¹ but the district court found that the car prices were not "original:" "While Maclean Hunter [the author of the Red Book] may have been first to discover and report this material, the material does not 'owe its origin' to Maclean Hunter." The appellate court reversed. ²⁵³ The figures in

^{244.} Possibly Beckett's identification of premium cards should be considered a matter of "coordination" or "arrangement," rather than "selection."

^{245.} See supra text accompanying note 81.

^{246.} Eckes, 736 F.2d at 860.

^{247.} A price guide may influence prices in the marketplace, but it seems to have been Beckett's intention to report market conditions rather than to determine them.

^{248.} See supra notes 216-227 and accompanying text.

^{249.} If the choice were arbitrary to the extent of randomness, there would be some authority for holding it unoriginal. See Toro Co. v. R & R Prods. Co., 787 F.2d 1208, 1213 (8th Cir. 1986).

^{250. 44} F.3d 61 (2d Cir. 1994).

^{251.} Id. at 64. The defendant sometimes used the Red Book data as is, and sometimes averaged its prices with those listed in the similar Bluebook. Id.

^{252.} Id. at 66-67.

^{253.} Id. at 63.

the Red Book, it observed, are not historical market prices but "predictions, based on a wide variety of informational sources and . . . professional judgment." Because the numbers were based on "judgment and expertise," they must be considered "original creations." 255

In several respects, CCC is more troubling than Eckes. In Eckes, the sharp division of cards into "common" and "premium" is a device that has no precise analog in the marketplace, and thus can be considered the author's "original" creation. In contrast, in CCC the court suggests that the prices themselves, which presumably are as close to reality as the authors could make them, are "original" because they are estimates. The authors can only be estimated. It is difficult to imagine a court holding an estimated value of gravity to be a figure protected by copyright, even if some "judgment and expertise" went into its formulation. The authors of "selection," as it is used in the definition of "compilation. The authors of the Red Book "selected" their prices by choosing them from a multitude of possibilities, but this is not selection in the sense of determining which materials to include in a collection and which to omit. If § 101 referred to data "selected, coordinated, arranged or devised in such a way that the resulting work as a whole constitutes an original work of authorship," one could make a better case that estimated prices are "original."

The court argues that information such as the Red Book prices must be protected or the public welfare will suffer:

Compilations that devise new and useful selections and arrangements of information unquestionably contribute to public knowledge by providing cheaper, easier, and better organized access to information. Without financial incentives, creators of such useful compilations might direct their energies elsewhere, depriving the public of their creations and impeding the advancement of learning. 259

^{254.} Id.

^{255.} Id. at 67. See also Marshall & Swift v. BS & A Software, 871 F. Supp. 952 (W.D. Mich. 1994). In Marshall & Swift, the court held copyrightable tables of estimated value used by assessors, even though the values were the product of mathematical formulas and represented as "true cash value." Id. at 959. The court described the values as "a product of judgment" exhibiting the necessary "creative spark." Id. at 960-61. "Even if Marshall's creative process consists in part of 'plugging' numbers into a formula and tabulating the results, an element of original selection—from a virtual universe of information—is inherently a part of this process." Id. at 960.

^{256.} CCC, 44 F.3d at 67.

^{257.} Such "judgment and expertise" might come into play, for example, if scientists discounted the values produced by certain experiments which, in according to their "judgment and expertise," were prone to error.

^{258.} See supra notes 127-129 and accompanying text.

^{259.} CCC, 44 F.3d at 66.

Identical reasoning could be applied to fact gathering. Facts unquestionably contribute to public knowledge, and if facts are not subject to copyright those who gather them may "direct their energies elsewhere." 260 Yet the Supreme Court has held unequivocally, either in spite of the Constitution's concern for the public welfare or because of it, that facts are not "original" and are not copyrightable.²⁶¹ The same could be said of estimated facts, and with much the same justifications. Furthermore, in addressing the argument that estimated prices are "ideas" rather than the expression of ideas, ²⁶² the court overstates its case when it warns that "if CCC's argument prevails . . . virtually nothing will remain of the protection accorded by the statute to compilations, notwithstanding the express command of the copyright statute."263 Something would remain—namely, the protection of any original "selection, coordination and arrangement" of prices. The author might not consider that protection enough, but it would prevent at least the easiest and most mechanical duplication of creatively presented information. In fact, the Red Book itself may have included such creativity, since it estimated prices by geographic regions, the selection of which may have been as arbitrary as the distinction between "common" and "premium" cards in Eckes. 264 However, any case that could be made for creative presentation is lost in the court's insistence that the facts themselves are protectable, because they are "infused with opinion." ²⁶⁵

The Ninth Circuit reached similar conclusions in *CDN Inc. v. Kapes*, ²⁶⁶ where the copyrighted works were lists of estimated wholesale coin prices. Here the issues were presented even more starkly:

Whether CDN's selection and arrangement of the price lists is sufficiently original to merit protection is not at issue here. CDN does not allege that Kapes copied the entire lists, as the alleged infringer had in *Feist*. Rather, the issue in this case is whether the prices themselves are sufficiently original as compilations to sustain a copyright.²⁶⁷

At the "heart of the case" lay "[t]he distinction between facts and non-facts, and between discovery and creation." Discoverable facts," the court admitted, "are not copyrightable." Coin prices, on the other hand, are not historical facts based on actual transactions, but values derived by "using [the

^{260.} Id.

^{261.} See supra notes 132-134 and accompanying text.

^{262.} See supra Part II.A.

^{263.} CCC, 44 F.3d at 70.

^{264.} See id. at 67.

^{265.} Id. at 72-73.

^{266. 197} F.3d 1256 (9th Cir. 1999).

^{267.} Id. at 1259.

^{268.} Id.

^{269.} Id.

authors'] judgment to distill and extrapolate from factual data."²⁷⁰ The faint spark of creativity demanded by *Feist* "glows in CDN's prices, which are compilations of data chosen and weighed with creativity and judgment."²⁷¹

The district court characterized each CDN price as a "best guess' as to what the current 'bid' and 'ask' price should be." Similarly, the Ninth Circuit described the prices as whatever the authors, "in their best judgment," thought would 'represent[] the value of [the] item as closely as possible." The court's language suggests that there is a true price for each coin which the authors sought to approximate, presumably with some success. But because the methodology was imperfect, and dependent on "expertise and judgment," the court held the CDN prices sufficiently creative and original to be copyrighted. The implications are far-reaching. Any reported facts that depend on judgment and approximation—crowd estimates, the age of antiquities, weather forecasts and medical diagnoses, to name just a few—could be considered copyrightable subject matter by the Ninth Circuit's reasoning.

One could argue that a collection of estimates, such as a price list, should be treated differently than any particular estimate, perhaps because of the Copyright Act's explicit protection of "compilations." However, once the estimates are judged original in themselves, and not because of the manner in which they are selected or arranged, one faces the common sense observation in *Feist* that "100 uncopyrightable facts do not magically change their status when gathered together in one place." More plausibly, one could argue that a price is not like other facts. Perhaps there is no such thing as a "true" coin price, or an "actual value," since price and value are always dependent on the changing and sometimes arbitrary desires of buyers and sellers. Perhaps the pretense of assigning a price to a coin is more fiction than fact. But whatever merits that line of argument might have, the Ninth Circuit did not rely upon it.

Finally, one might characterize the CDN coin prices as a vehicle for presenting complex data. In other, less controversial cases, courts have held

^{270.} Id. at 1261.

^{271.} *Id.* at 1260. As in *CCC*, the court appeals to policy: "Drawing this line preserves the balance between competition and protection: it allows CDN's competitors to create their own price guides and thus furthers competition, but protects CDN's creation, thus giving it an incentive to create such a guide." *Id.* at 1262. Again, the same argument could be used in support of copyrighting facts. Extending the protections of copyright to reported facts arguably would "preserve[] the balance between competition and protection" by allowing authors to gather their own facts in competition with a first author (perhaps collecting them more accurately, as well) while protecting the "creation" of the first author and the "incentive" to gather facts. *Id.* That view of the appropriate competitive balance would, nevertheless, be inconsistent with *Feist* and 17 U.S.C. § 102(b).

^{272.} CDN, 197 F.3d at 1260.

^{273.} Id. at 1261.

^{274.} Id. at 1260.

^{275. 17} U.S.C. § 103 (1994).

^{276.} Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 345 (1991).

that a particularly useful or concise presentation of facts is original and worthy of copyright protection. For example, in *U.S. Payphone, Inc. v. Executives Unlimited of Durham, Inc.*,²⁷⁷ the Fourth Circuit held copyrightable a publication distilling complicated public domain payphone tariff information into a convenient one-page-per-state format.²⁷⁸ *CDN* suggests that coin price lists serve a similar function:

If CDN merely listed historical facts of actual transactions, the guides would be long, cumbersome, and of little use to anyone. Dealers looking through such data would have to use their own judgment and expertise to estimate the value of a coin. What CDN has done is to use its own judgment and expertise in arriving at that value for the dealers.²⁷⁹

In a sense, the CDN price lists condense complicated data into something briefer and more useful, but the same could be said of the product of any research. Anyone interested in the fate of the Hindenburg would find the theory of Eric Spehl's sabotage more convenient than the stack of evidence from which it was derived. Just as the sabotage theory is more than a concise summary of the evidence, the CDN prices are more than a distillation of price data. They are the authors' best estimates of what the coins are actually worth.

E. Predictions

Predicting the future is, inevitably, an art "infused with opinion."²⁸⁰ Price guides can be described as predictions, ²⁸¹ or as reflections, however imperfect, of the current state of the marketplace. Other copyrighted works are more explicitly concerned with future events. Because few things are as useful as accurately predicting the future, such works raise difficult issues under the idea/expression, ²⁸² fact/expression²⁸³ and process/expression dichotomies. ²⁸⁴

Not long after the Supreme Court decided Feist, 285 the Second Circuit, in Kregos v. Associated Press, 286 addressed the copyrightability of a "pitching

^{277.} Nos. 89-1081, 89-1085, 1991 U.S. App. LEXIS 7599 (4th Cir. Apr. 29, 1991).

^{278.} *Id.* at *8. The copyrightability of the format could have been questioned if there had been only a limited number of ways to present the information, *see supra* notes 60-64 and accompanying text, but the court found that the information "could have been organized in many different ways." *Id.* at *6.

^{279.} CDN, 197 F.3d at 1261.

^{280.} CCC Info. Servs., Inc., v. Maclean Hunter Mkt. Reports, Inc., 44 F.3d 61, 65 (2d Cir. 1994).

^{281.} They are predictions in the sense of guessing what sellers will demand, and what buyers will pay, for a particular item. *Id.* at 63.

^{282.} See supra Part II.A.

^{283.} See supra Part II.B.

^{284.} See supra Part II.C.

^{285.} See supra notes 122-134, 136-142 and accompanying text.

form" listing baseball player statistics.²⁸⁷ Although other pitching forms predated Kregos' form, his was the first to list nine categories of data concerning the previous performances of the pitchers matched for an upcoming game.²⁸⁸ The defendant, Associated Press, published a pitching form virtually identical to Kregos' form.²⁸⁹ The district court granted summary judgment for AP, holding, among other things, that Kregos' selection of statistics lacked originality, and that the idea of the form had merged²⁹⁰ with its expression.²⁹¹ The Second Circuit reversed, drawing parallels between Kregos' selection of statistics and Eckes' selection of "premium" baseball cards:²⁹²

The universe of known facts available only from inspection of box scores of prior games is considerably greater than nine, though perhaps not as great as the quantity of 18,000 cards in Eckes. For example, Kregos could have selected past performances from any number of recent starts, instead of using the three most recent starts. And he could have chosen to include strikeouts, walks, balks, or hit batters. By consulting play-by-play accounts of games, instead of box scores, he could have counted various items such as the number of innings in which the side was retired in order, or in which no runner advanced as far as second base. Or he could have focused on performance under pressure by computing the percentage of innings in which a runner scored out of total innings in which a runner reached second base, and he could have chosen to calculate this statistic for any number of recent starts. In short, there are at least scores of available statistics about pitching performance available to be calculated from the underlying data and therefore thousands of combinations of data that a selector can choose to include in a pitching form.²⁹³

Since Kregos had chosen his nine statistics from a wealth of possibilities, the court found his selection "creative" in the sense required by Feist. 294

Of course, it was no accident that Kregos' form reported earned run averages rather than hot dog sales; Kregos evidently considered these nine

^{286. 937} F.2d 700 (2d Cir. 1991).

^{287.} Id. at 701.

^{288.} Id. at 702. The categories included the pitchers' won/lost records and earned run averages for the entire season; their won/lost records, innings pitched and earned run averages for the entire season, against the opposing team at the site of the game; and their won/lost records, innings pitched, earned run averages and men-on-base averages for their last three starts. Id.

^{289.} Id.

^{290.} See supra notes 60-64 and accompanying text.

^{291.} Kregos, 937 F.2d at 702.

^{292.} See supra notes 231-240 and accompanying text.

^{293.} Kregos, 937 F.2d at 704.

^{294.} Id. at 705.

statistics to be the most useful for picking a winner.²⁹⁵ Yet the court did not regard the selection as an "idea."²⁹⁶ "Every compiler of facts has the idea that his particular selection of facts is useful," the court observed.²⁹⁷

If the compiler's idea is identified at that low level of abstraction, then the idea would always merge into the compiler's expression of it.... However, if the idea is formulated at a level of abstraction above the particular selection of facts the compiler has made, then merger of idea and expression is not automatic. ²⁹⁸

Similarly, Kregos' form was something more (or something less) than a "system" for predicting outcomes.²⁹⁹ The form reported "facts that [Kregos thought] newspaper readers should consider in making their own predictions of outcomes," but it did not do the work for them.³⁰⁰ Kregos did not "weight the nine statistics, much less provide a method for comparing the aggregate value of one pitcher's statistics against that of the opposing pitcher in order to predict an outcome."³⁰¹ He had simply "compiled facts, or at least categories of facts."³⁰²

The court "confess[ed] . . . some unease," given the potential for monopolizing an idea by copyrighting a particular selection of data. A doctor, for example, might publish a list of symptoms used to diagnose a disease. Even if other symptoms could be selected for the same purpose, there would be "a substantial question" of copyrightability; the selection of symptoms might represent the "idea" of diagnosis based on those particular symptoms, which could be expressed only in that list. That concern did not prevail here, apparently because Kregos' selection of statistics involved "taste

^{295.} *Id.* at 707 ("[Kregos] is doing more than simply saying that he holds the opinion that his nine performance characteristics are the most pertinent. He implies that his selections have some utility in predicting outcomes.").

^{296.} Id. at 706.

^{297.} Id.

^{298.} Id.

^{299.} See 17 U.S.C. § 102(b) (1994) ("In no case does copyright protection for an original work of authorship extend to any ... system ... regardless of the form in which it is described, explained, illustrated, or embodied in such work." (emphasis added)).

^{300.} Kregos, 937 F.2d at 706.

^{301.} Id.

Like the compilers of horse racing statistics, Kregos has been content to select categories of data that he obviously believes have some predictive power, but has left it to all sports page readers to make their own judgments as to the likely outcomes from the sets of data he has selected.

Id. at 707.

^{302.} Id. at 706.

^{303.} Id. at 707.

^{304.} Id.

^{305.} Id.

^{306.} Id.

and personal opinion,"³⁰⁷ and did not, without further analysis, predict any future outcome. ³⁰⁸ The court described a "continuum spanning matters of pure taste to matters of predictive analysis," and held Kregos' selection of statistics near enough to the "taste" end of the spectrum to avoid any question of monopolizing a useful idea. ³⁰⁹

Judge Sweet, writing in dissent, struggled to distinguish between the majority's medical diagnosis example and the predictive function of Kregos' statistics: "In both cases, the creators have conceived very precise 'ideas' concerning the significant data which ought to be considered in predicting a given result, and those ideas can be expressed only by identifying the relevant data."³¹⁰ Even if medicine is "more socially beneficial than a system for estimating sports odds," the distinction, argued Judge Sweet, "does not offer a basis for denying copyright protection to one while granting it to another."311 Nor could one argue that diagnosis is "more 'scientific' and less 'creative' than handicapping a baseball game. No doubt many people, including both doctors and those who make their living, either legally or illegally, in the sports gambling profession, would dispute such a claim."312 Finally, Judge Sweet regarded the majority's reasoning as inconsistent with the process/expression dichotomy of Baker:313 "In my opinion. Kregos' form constitutes an explanation of his preferred system of handicapping baseball games, and he seeks to use his copyright here to prevent others from practicing that system."314

Other critical observations can be added to those of Judge Sweet. First, it is curious that the incompleteness of Kregos' system—i.e., his failure to suggest how the statistics he identified should be used—leads to the

^{307.} Id.

^{308.} Id.

^{309.} Id.

His "idea," for purposes of the merger doctrine, remains the general idea that statistics can be used to assess pitching performance rather than the precise idea that his selection yields a determinable probability of outcome. Since there are various ways of expressing that general idea, the merger doctrine need not be applied to assure that the idea will remain in the public domain.

Id. (footnote omitted).

^{310.} Id. at 711 (Sweet, J., dissenting in part).

^{311.} *Id.* Distinguishing between different fields of endeavor based on their "social benefits" might cause discomfort similar to what would be experienced if courts took on the role of art critics. *See supra* note 100. Further, to discount the value of a particular set of statistics would be, in most cases, to reject the judgment of both plaintiff and defendant, each of whom evidently regarded the statistics as worthy of publication. On the other hand, if the boundary between idea and expression is just a pragmatic one designed to promote healthy competition, *see supra* notes 49-50 and accompanying text, one cannot entirely dismiss the notion of case-specific line drawing in which courts take into account, among other things, the likely impact on society.

^{312.} Kregos, 937 F.2d at 711 n.2 (Sweet, J., dissenting in part).

^{313.} See supra Part II.C.

^{314.} Kregos, 937 F.2d at 713 (Sweet, J., dissenting in part).

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conclusion that the statistics can be reserved to Kregos as his exclusive property. Apparently, if Kregos had described a specific method of using these statistics to predict an outcome, the court would have held that method uncopyrightable. Yet, the very incompleteness of Kregos' system leads to a broader monopoly; not just one method, but any method of using Kregos' statistics, would be preempted by his copyright. Kregos' system is both less useful and more all-encompassing than a more complete system which the court would have committed to the public domain.

Second, one can question whether the court has properly imagined a "continuum" between opposite poles of "pure taste" and "matters of predictive analysis." Many selections based on "pure taste" have nothing to do with prediction, other than the prediction that readers will benefit from the selection. A collection of "Amazing Facts About Alabama," for example, predicts no outcome external to the reader's experience of the work. The court seems to intend, rather, a distinction between highly speculative prediction (perhaps so speculative as to be defensible only on the arbitrary grounds of "taste") and more reliable, systematic or "scientific" prediction. As Judge Sweet observes, it is difficult to draw such distinctions, given the manner in which art and science combine in most attempts to predict the future. 316

Finally, the court is so intent on denying that idea and expression have merged, a concern pertinent only to the idea/expression dichotomy, the court misses the separate concerns raised by the fact/expression and process/expression dichotomies. If Kregos' list of statistics reflects a fact about the game of baseball—that there is a correlation between pitchers' relative performances in these areas and their likelihood of winning the next game—then it should make no difference whether there are other such correlations to be discovered. Similarly, to the extent that Kregos' form is necessary to use any system based on those statistics to predict the outcome of a game, it should make no difference that other systems, using other statistics, could be used instead. Although there are many systems of bookkeeping, under *Baker* no one system can be monopolized by copyright. 317

Equally troubling is Compaq Computer Corp. v. Procom Technology, Inc., ³¹⁸ decided by a district court in Texas. Compaq developed software for warning a network administrator when disk drive failure could be imminent. ³¹⁹ The timing of a "prefailure warning"—a warning based on a likelihood of failure, rather than an actual problem—depended on five parameters selected and monitored by Compaq. ³²⁰ The intention was to allow disk drives nearing

^{315.} Id. at 707.

³¹⁶ Id. at 712-13 (Sweet, J., dissenting in part).

^{317.} See supra text accompanying notes 107-115.

^{318. 908} F. Supp. 1409 (S.D. Tex. 1995).

^{319.} Id. at 1415.

^{320.} Id.

the end of their life cycles to be replaced before they actually failed.³²¹ In order to make its own products compatible with the Compaq software, Procom copied onto its disk drives data representing Compaq's "threshold values" for the five failure-predicting parameters.³²² Compaq filed suit, arguing that the threshold values were copyrighted.³²³

As in *Kregos*, the court held the values "original" because of the many choices available to their "author":

Compaq had to determine both the number and the particular parameters which it would monitor.... In addition, Compaq had to decide upon the appropriate threshold value for each of the five parameters selected. In selecting the threshold value, Compaq had to consider the point at which the drive would actually fail and then select a threshold that would be reached before actual failure. However, Compaq did not want to set the prefailure point too early in the life of the drive, otherwise Compaq would incur unnecessary expenses [under its warranty program]. 324

Compaq could have chosen to monitor other parameters, or could have used different threshold values for the same parameters. The selections, the court noted, were "based on both engineering and business related judgments," and they "reflect the requisite degree of creativity and judgment necessary to [copyright the] compilation." ³²⁷

In addition, the court held that Compaq's threshold values were not facts because they were not, like telephone numbers, "empirically verifiable." They were, instead, the "result of a decision making process," and "more a prediction than a fact." Compaq's selection amounted to a "business decision as to the point in the life of the drive that Compaq is willing to replace it under its warranty program," or even an "express[ion of] opinion"

The prefailure warning program was developed as part of a warranty package provided by Compaq to those customers who buy Compaq drives. When a hard drive has degraded below a predetermined "threshold value," a prefailure warning is triggered. Once this happens, Compaq will replace the drive that triggered the warning even though it has not actually failed.

Id.

^{321.} Id.

^{322.} Id. at 1416.

^{323.} Id. at 1413.

^{324.} Id. at 1415 (footnote omitted).

^{325.} Id. at 1418.

^{326.} Id. at 1415.

^{327.} Id. at 1418.

^{328.} Id.

^{329.} Id.

^{330.} Id.

regarding when a drive should be replaced.³³¹ Other companies could express their own opinions by choosing different thresholds.³³²

Applying copyright rules to data "understood" only by a machine³³³ is frequently problematic, but both Congress and the courts have determined that such data may be within the scope of copyright.³³⁴ Deferring to that precedent, the threshold values recorded on Compaq's disk drives should be no less copyrightable than the same values would be if printed in a user's manual for the benefit of a system administrator. Nevertheless, the question remains whether those values, wherever they appear, are an "original" work of authorship.

As in Kregos, the court concentrates on the problem of merger of idea and expression, and solves it by finding that the author selected from a wide range of available choices. 335 The court preempts the fact/expression dichotomy by holding the threshold values an expression of "opinion," rather than a statement of fact, a characterization which, presumably, also disposes of the process/expression dichotomy. But the outcome is unsatisfying. Compaq achieved was, in effect, a monopoly on its insights into disk drive operation and business planning. The former, especially, might be characterized as discoveries, rather than creative expression. The point at which a disk drive will fail is a fact, as is the relationship of any given set of parameters to the life expectancy of the drive. Even if one can only guess at those facts, it is unsettling to make Compaq's educated "best guess" the subject of exclusive rights through *copyright*, rather than, perhaps, the patent monopoly, which is devised with such useful ingenuity in mind. However worthy Compag's achievement, can it really be appropriate to treat the insights of an engineer (or a warranty-minded accountant) on a par with those of the author whose selection of poetry effectively communicates a mood? Is this what Feist meant by "creativity?"

^{331.} Id. at 1419.

^{332.} Id at 1418-19.

^{333.} Procom itself did not understand what the threshold data represented; it knew only that the data had to be on its disk drives if they were to be compatible with the Compaq system. *Id.* at 1416.

^{334. 17} U.S.C. § 101 (1994) (defining a "computer program" as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result," and, by implication, including such programs within the subject matter of copyright); Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240, 1249 (3d Cir. 1983) (finding that a computer program is copyrightable as a "literary work," even when embodied in virtually unreadable object code).

^{335.} Compag Computer, 908 F. Supp. at 1418-19.

IV. RESTORING THE FEISTIAN BARGAIN

The recent cases imply a new copyright dichotomy, separating not fact and expression but *fact and opinion*, or, perhaps more accurately, "hard facts" and "soft facts." Hard facts are objective, unoriginal and in the public domain; soft facts are subjective, original and copyrightable. Plausible as it may at first appear, the distinction between public domain hard facts and copyrightable soft facts has serious flaws.

A. Distinguishing Fact and Opinion

Hard facts and soft facts differ only in objectivity. A telephone number is a hard fact because the correct number is the correct number, regardless of the point of view of the person who reports it. The telephone number for the White House switchboard is (202) 456–1414. Unless I have it wrong, nothing about that fact "owes its origin" to me. On the other hand, if I assign a value of \$16.09 to a 1924 Denver Mint buffalo nickel in fine condition, that value may owe a great deal to me. Perhaps no other person would attribute precisely that price to that coin. Other judgments and other experiences could lead to other prices, some of which might be closer to the mean than others, but none of which could be truly described as right or wrong. Nothing in the world "out there" compels the choice of exactly \$16.09. Hence, the courts might describe me as the "author" of that coin price and, at least in the aggregate, might consider my prices susceptible to copyright.

While the example suggests a clear distinction between uncopyrightable hard facts and copyrightable soft facts, it is a distinction that in practice is difficult to maintain. Indeed, one wonders whether there are enough hard facts to preserve the principle of *Feist* that facts in general are uncopyrightable, or whether the subjectivity exception would overwhelm the rule. Few facts are entirely objective. Even as colorless a fact as "In 1970, the population of Princeton, New Jersey, was 12,331,"337 owes something to its author. The person who collects and reports that information has an idea of Princeton, New Jersey as a distinct political or geographic entity, and 1970 as a distinct division of time. These are conventional ideas, but ones derived from human thought and culture rather than imposed by the world. Other elements built into this fact are more personal. Census takers may have differing ideas of "population." Some may include, or exclude, tourists, college students, the homeless, legal or illegal aliens, people who only worked in Princeton, or

^{336.} I use "hard facts" to refer to information, like telephone numbers, which is relatively certain and independent of any point of view, and "soft facts" to refer to information, like price forecasts, which is relatively uncertain and "infused with opinion."

^{337.} See supra note 5 and accompanying text.

people who lived in Princeton for only a portion of the year. Some may calculate the population based on persons living in Princeton on January 1, 1970 or December 31, 1970. Some may take an average. The choice of methodology is, in some sense, a matter of "opinion." This is not to suggest that the reported population is nothing more than the census taker's fantasy, or that one figure cannot be more accurate than another, but any census data is, at least, the product of objective reality and subjective decisions rendered by the census taker. One can imagine a census taker reciting the methodological choices reflected in his data, just as photographers recite the choices of lens, film, lighting and so forth that led to their individual renderings of a scene.³³⁸

Philosophers would be particularly reluctant to recognize a category of objectively ascertainable facts, many philosophers, particularly of the post-modern school, insisting that truth itself is a social construct. That is not to say that there is no world "out there," ather that the world does not "split[] itself up, on its own initiative, into sentence-shaped chunks called facts." What we call "facts," philosophers argue, are "the product[] of a highly creative interaction between human minds and the cosmos." By constraining the questions we ask of the world, such subjective elements as personality and culture influence the answers we find. Benjamin Whorf, for example, argued that much of our perception of the world is determined by language. As Whorf observed:

We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face,³⁴⁴ on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in

^{338.} See supra notes 86-88 and accompanying text. One could say, of this census example, that there is only one "right answer" once the terms have been defined, but one could equally say of photography that there is only one image to be recorded, once all of the photographer's choices have been made. In either case, the creativity may be found in the preliminaries.

^{339.} See THE TRUTH ABOUT THE TRUTH: DE-CONFUSING AND RE-CONSTRUCTING THE POSTMODERN WORLD 8 (Walter Truett Anderson ed., 1995).

^{340.} Although Jaques Derrida famously declared "Il n'y a pas de hors-texte"—"there is nothing outside of the text"—there are probably few philosophers who would deny the existence of a "real world," even when they question our capacity to grasp it. Id. at 89, 8.

^{341.} RORTY, supra note 1, at 5.

^{342.} THE TRUTH ABOUT THE TRUTH, supra note 339, at 8.

^{343.} BENJAMIN LEE WHORF, LANGUAGE, THOUGHT AND REALITY 213 (John B. Carroll ed., 1956). Whorf's best-known example involves Eskimos and snow; Eskimos perceive differences in snow because they have the vocabulary to describe each variety of snow distinctly, whereas, to the inhabitants of more temperate regions, snow is snow. *Id.* at 216.

^{344.} See discussion supra Part III.B (taxonomies as copyrightable subject matter).

this way—an agreement that holds throughout our speech community and is codified in the patterns of our language.³⁴⁵

Because of such language constraints, even the truths of science cannot be entirely objective. "[N]o individual is free to describe nature with absolute impartiality but is constrained to certain modes of interpretation even while he thinks himself most free." ³⁴⁶ If the public domain facts discussed in *Feist* are only those uncorrupted by the author's point of view, *Feist* is a much less significant case than most have supposed.

One might expect distinctions to break down in the rarified atmosphere of philosophy, but even on the most practical level nagging questions remain. If the application of "judgment and expertise" makes the prediction of a used car price an "original creation," why not a meteorologist's forecast, a physician's diagnosis or an archaeologist's interpretation of an artifact? Why not an historian's theory on the sabotage of the Hindenburg or the demise of John Dillinger? Is a controversial theory of physics any less "infused with opinion" than a car price? If so, how much less "infused" must it be before it enters the realm of the unprotectable?

Debates among scientists are commonplace, even when the scientists are evaluating the same information. For example, astronomer David Black contends that all of the extra-solar planets so far discovered "are actually misidentified stars." Most astronomers, viewing the same data, strongly disagree. Independent researchers from Tel Aviv University agree with Black that most of the identified planets are mis-identified stars, with two exceptions. Given the present state of knowledge, anyone's list of genuine extra-solar planets is bound to be speculative, and to a degree personal. The controversy over the Martian meteorite, said by *some* scientists to contain evidence of life, is a further example of "opinionated" science. 352

^{345.} WHORF, supra note 343, at 213.

^{346.} *Id.* at 214. Whorf rejected the notion of a "universe that can be 'found' independently by all intelligent observers, whether they speak Chinese or Choctaw," which perhaps undercuts the distinction between creation and discovery associated with the fact/expression dichotomy. *Id.* at 208; see supra Part II.B. Whorf still does not suggest that truth is entirely personal. He suggests, rather, that perceptions of truth are different in different communities, speaking different languages. *Id.* at 214. Within any particular community, it would appear that truths could be "discovered" rather than "created," at least so far as to justify treating those truths as common property rather than as the property of their "author."

^{347.} See supra note 255 and accompanying text.

^{348.} See supra Part III.C.

^{349.} George Musser, Lost Worlds, SCI. AM., Jan. 2001, at 21.

^{350.} Id.

^{351.} Id. at 21-22.

^{352.} See Ron Cowen, Searching for Life in a Martian Meteorite: A Seesaw of Results, 150 SCL NEWS 380, 380 (1996).

One might conclude that most beliefs—even many we confidently label facts—are personal and subjective, hence "creative" and copyrightable, yet we cannot go so far without largely, or even entirely, abandoning what the *Feist* Court called "the most fundamental axiom of copyright law." Instead, we are driven to the contrary conclusion: if subjectivity is an attribute of all facts, one cannot rely upon it, unless in indeterminate matters of degree, to identify a limited category of "opinionated" facts which are subject to copyright.

The soft facts distinction also runs contrary to the various dichotomies that traditionally define the subject matter of copyright. 354 One engineer's (or accountant's) "opinion" that an aging disk drive should be replaced today rather than tomorrow may fairly be characterized as an idea about disk drive maintenance (or good business practices) rather than the expression of an idea. Compaq rejects that argument because "[t]here are numerous ways that a drive supplier may express its opinion as to when it should replace its [disk] drive[]." Perhaps—but only if each disk drive manufacturer has a different opinion or, in effect, a different idea. At best, the Compaq approach to the idea/expression quandary begs the question; one must assume that Compaq's "idea" lies at a higher level of abstraction than its particular choice of parameters before one can conclude that the "idea" is capable of various expressions. The same is true of the Kregos list of baseball statistics and the prices quoted in the CCC and CDN guides.

The process/expression dichotomy is also a concern. Compaq's system can be described as a method, or system, for predicting the failure of disk drives, or at any rate, for optimizing the timing of their replacement. Such a method, if it is non-obvious, is a candidate for patent protection, particularly now that "methods of doing business" have been recognized as patentable subject matter. The Certainly it would be useful enough to satisfy the patent law requirement of "utility." Hence, Compaq's attempt to protect its parameters as copyrightable "expression," no less than Selden's attempt to protect his bookkeeping form, seems an intrusion into the territory of patent law, without the relatively short duration of monopoly, rigorous examination and

^{353.} Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344-45 (1991) ("The most fundamental axiom of copyright law is that '[n]o author may copyright his ideas or the facts he narrates." (quoting Harper & Row Publishers, Inc. v. Nation Enters., 471 U.S. 539, 556 (1985))).

^{354.} See supra Part II.

^{355.} Compaq Computer Corp. v. Procom Tech., Inc., 908 F. Supp. 1409, 1419 (S.D. Tex. 1995).

^{356.} State St. Bank & Trust Co. v. Signature Fin. Group, 149 F.3d 1368, 1375 (Fed. Cir. 1998).

^{357.} See 35 U.S.C. § 101 (1994) (patents awarded to inventors of "any new and useful process, machine, manufacture, or composition of matter"); Tol-O-Matic, Inc. v. Proma Produkt-Und Mktg. Gesellschaft m.b.H., 945 F.2d 1546, 1553 (Fed. Cir. 1991) ("All that the law requires is that the invention should not be frivolous, or injurious to the well-being, good policy, or good morals of society. The word useful therefore is incorporated into the act in contradistinction to mischievous or immoral." (quoting In re Nelson, 280 F.2d 172, 178-79 (1960))).

^{358.} See supra text accompanying notes 107-115.

disclosure quid pro quo that patent law demands. Every inventor may have a different "opinion" regarding the optimal invention, but the product of an inventor's labors is still the stuff of patents, not copyrights.

Finally, and most importantly, it is difficult to justify the exclusion of soft facts from so fundamental a concept as the fact/expression dichotomy. However opinionated or subject to error a soft fact may be, it reflects, or purports to reflect, an external reality which "do[es] not owe [its] origin to an act of authorship" —a discovery, not a creation. Compaq did not create the physical laws or business considerations that make disk drive replacement at a particular time more or less optimal. Kregos did not create the statistical relationships implied by his choice of baseball statistics. Except to the extent that their works are self-fulfilling prophecies, the authors of price guides do not create the demand for certain cars or coins. How, then, can we justify locking up such "un-original" insights in the long-lasting monopoly of copyright?

Policy considerations add very little. While it is true that opinion-infused facts are valuable and that their "authors" should be encouraged, hard facts are also valuable, and those who discover them likewise should be encouraged. Nevertheless, copyright law forbids a property interest in hard facts, favoring public access over incentives. Perhaps soft facts, because they are more speculative, are in some sense less useful than hard facts, so their authors' exercise of dominion withholds less from the public domain. Yet if soft facts are less in demand than hard facts, one could argue that encouraging their production through monopoly is proportionately less justified. Any differences between hard facts and soft facts, at least in terms of their contributions to society, appear on both sides of the copyright equation and seemingly cancel out.

B. Feist Revisited

On any question of copyright as it applies to factual works, *Feist* is the preeminent authority. Predictably, the later "soft facts" decisions³⁶¹ make reference to *Feist*, particularly in emphasizing the low *threshold* of originality—phrased in *Feist* in terms of a "minimal level" of creativity,³⁶² a

^{359.} Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 347 (1991).

^{360.} See Gorman, supra note 222 at 572-73 ("Permitting a monopoly against copying (even in modestly embellished form) one's list of the fifty most livable cities in America will, because of the very subjectivity involved in its compilation, not likely deprive the public of quite as significant information as when the compilation is mechanical, streamlined, and exhaustive.").

^{361.} E.g., CDN Inc. v. Kapes, 197 F.3d 1256, 1259 (9th Cir. 1999); CCC Info. Servs., Inc., v. Maclean Hunter Mkt. Reports, Inc., 44 F.3d 61, 65 (2d Cir. 1994).

^{362.} Feist, 499 U.S. at 358.

"not particularly stringent" requirement, ³⁶³ or a "creative spark." Perhaps, however, they pay too little heed to *Feist*'s observations on the *nature* of originality. *Feist* strongly suggests that, in the case of factual works, "originality" or "creativity" lies only in the manner of presentation. ³⁶⁵ In discussing the copyrightability of compilations, the Court states: "Facts are never original, so the compilation author can claim originality, if at all, *only in the way the facts are presented.*" The way for the author to exhibit such originality is primarily through the selection, coordination and arrangement of the materials. ³⁶⁷

Feist does not hold that a spark of creativity at any stage of the production of a written work suffices to make that work "original." On the contrary, by rejecting copyright protection for collections of facts based on the labors of the fact gatherer—the so-called "sweat of the brow"—Feist impliedly rejects creativity in fact gathering as a relevant consideration. No matter how clever the research techniques behind the telephone directory, and no matter how indispensable they were to its contents, it is highly unlikely that the Feist Court would have considered such creativity sufficient. As subsequent cases have observed, ³⁶⁸ crediting originality in fact-gathering techniques, as opposed to fact-expressing techniques, would contradict the Feist distinction between creation and discovery. 369 For the same reason, the Feist Court almost certainly would not have recognized creativity in formulating facts—whether characterized as judgment, experience or opinion—as a source of copyrightable originality. Originality in formulating facts, like originality in gathering facts, is creativity that precedes expression, rather than being a part of it. It may allow an author to convey a truer picture of the world, but that truth is not of the author's making, and cannot belong to the author by copyright.

^{363.} Id.

^{364.} Id. at 359.

^{365.} Id. at 358.

^{366.} *Id.* (emphasis added). In other instances the court similarly focuses on creativity in presentation or expression, as opposed to creativity in substance. *See, e.g., id.* at 348.

Factual compilations . . . may possess the requisite originality. The compilation author typically chooses which facts to include, in what order to place them, and how to arrange the collected data so that they may be used effectively by readers. These choices as to selection and arrangement, so long as they are made independently by the compiler and entail a minimal degree of creativity, are sufficiently original that Congress may protect such compilations through the copyright laws.

Id.

^{367.} Id. at 358. Originality might also subsist in the particular language chosen to express a fact. See supra note 7.

^{368.} See supra text accompanying notes 151-158.

^{369.} See supra notes 128-130 and accompanying text.

C. A Suggested Approach

The approach to factual works that is most consistent with *Feist* is to seek out originality only in expression or presentation. Original language, or an original arrangement of materials, should be subject to copyright, at least as long as alternative means exist to express the same facts. What should not be subject to copyright is anything that reflects, or purports to reflect, a truth about the world external to the author and his works. Such truths, whether they are presented uncorrupt and unarguable or through the fallible lens of opinion, should become a part of the public domain, just as an author's ideas become a part of the public domain.³⁷⁰

Collections of facts, like the directories considered in Feist, should be held copyrightable, as long as the selection, coordination and/or arrangement of facts is minimally creative, and as long as other selections, coordinations and arrangements can serve equally well. Coordination and arrangement are, in most cases, matters of presentation rather than substance. Coin prices are precisely the same, whether they are organized by value, by type of coin, or by the year the coins were minted, and no matter how various lists are crossreferenced. Such choices are not constrained by any circumstance external to the work. "Selection" must be looked at more carefully. One could say that the author of a coin price guide "selects" \$16.09 as the price of a coin, instead of \$16.08 or \$16.10. Such selection is more than a matter of presentation, at least to the extent that it represents the author's best guess as to what the coin's value actually is. Similarly, a musicologist's list of all authentic pieces by J. S. Bach, based as it may be on the musicologist's golden ear and subjective judgment, purports to reflect a truth about Bach that would exist, and did exist, independently of its author. Other musicologists should be privileged to reproduce that list, just as they could reproduce newly-discovered facts about Bach's personal relationships or financial condition. Any other result contradicts Feist. 371

Some "selections" are matters of presentation and do qualify as creative expression. The map maker who chooses to include some streets but not others is making a choice as to the most convenient way, or most aesthetically

^{370.} See supra text accompanying notes 54-56.

^{371.} Authors might respond that their works are so speculative that they are unlikely to reflect the true state of affairs. Perhaps the author of the coin price guide would admit a margin or error, and the musicologist would expect a few mistakes. If authors are prepared to market their works as fact, rather than fiction, they might with some justice be considered estopped to claim otherwise, as is usually the case with "false facts." In any event, exceptions based on the unreliability or subjectivity of the reported facts would call on courts to draw difficult, and perhaps ultimately impossible, distinctions. All facts lie on a continuum of subjectivity, and neither copyright law nor copyright precedent tell us where to draw a line. The line that Feist suggests is not between subjective and objective, but between creation and discovery, or, to put it another way, between the authors who describe the world and the world they purport to describe.

pleasing way, to present a subset of the available information. Only if the selection reflected an external circumstance not of the author's making (e.g., the map illustrated all interstate highways but no lesser roads) could the selection be held to embody information about the world that belongs in the public domain. 372

Other "selections" are less obviously matters of presentation, but equally reflect the author's taste and imagination, rather than the discoverable world. An example can be found in Worth v. Selchow & Righter, Co. 373 The plaintiff. Fred L. Worth, compiled a two-volume work he called "The Complete Unabridged Super Trivia Encyclopedia." Based on information derived from books, films and television shows, each book included 6,000 items, arranged alphabetically by subject matter headings. 375 Worth's goal was to collect and present "interesting and trivial facts" as well as "facts that are difficult to find."376 Worth charged that the creators of the board game Trivial Pursuit had appropriated many of their questions and answers from the materials collected in his books.³⁷⁷ He lost the case because the court found the works lacking in substantial similarity. 378 but the originality of Worth's

The arrangement of Worth's book was not copied: His factual entries are arranged in alphabetical order; the Trivial Pursuit questions and answers are organized and color-coded by subject matter and are randomly arranged on each

^{372.} In spite of the concerns raised by the process/expression dichotomy, see supra Part II.C, few courts would deny copyright to some manners of expression simply because they are more useful than other manners of expression. The compiler of the "Chinese yellow pages" in Key, for example, chose listings which she considered most useful for her audience, thereby producing a unique directory. Key Publ'ns, Inc. v. Chinatown Today Publ'g Enters., Inc., 945 F.2d 509, 513 (2d Cir. 1991); see also Nester's Map & Guide Corp. v. Hagstrom Map Co., 796 F. Supp. 729, 732, 735 (E.D.N.Y. 1992) (The author of a city guide "selected only the important and most helpful cross streets based upon his knowledge of New York," and that selection, based upon the author's "knowledge and judgment as to their usefulness to a cab driver," was copyrightable; however, mileage estimates included in the same guide were uncopyrightable, even though "the distances are not precise by the standards of a topographical survey."). One could argue that the selection was the author's attempt to approximate the most useful directory possible, and that the nature of the most useful directory is determined by the needs of the audience—a matter external to the author's imagination, and in a sense a "fact" about the world. Yet the Feist Court almost certainly would not have denied protection to a less mechanically-organized directory simply because it was useful, nor would such an approach fit well with the protections long given to factual works such as maps and charts. When the author of a factual work chooses a particular means of expression, or a particular selection, coordination or arrangement of facts, because it is perceived to be useful, at least it is a choice of presentation. It concerns the nature of the work itself, and does not exist independently of the work. The protection of such communicative selections fits more comfortably with the dichotomies of copyright than the protection of even "opinionated" facts, which do have an existence independent of the work.

^{373. 827} F.2d 569 (9th Cir. 1987).

^{374.} *Id*. at 570. 375. *Id*.

^{376.} Id.

^{377.} Id.

^{378.} Id. at 573.

compilation is indisputable. Although the individual facts he reported were discoveries, the selection was Worth's creation. It owed nothing to the world external to Worth's individual taste and imagination.³⁷⁹

This kind of creativity can be recognized in factual works, and protected by copyright, without doing violence to the separation of fact and expression, or creation and discovery. The creativity exhibited in the CDN coin prices, the car prices collected in the Red Book, or the Compaq parameters, is a different matter. These are "selected" for their perceived fidelity to a reality "out there." There is creativity in the sense that subjective judgments have been brought to bear; only these authors, with their individual experiences and opinions, could produce exactly these works. To that extent, the works "owe their origin" to their authors. But their judgments, subjective or not, are directed at a reality beyond themselves and their individual beliefs. ³⁸⁰

The place to draw the copyright line is not between objective and subjective accounts of the world, but between what one could call reporting and taste. The musicologist's collection of *authentic* pieces by Bach is an example of the former, however tentative, even individual, a report it may be. A collection of *favorite* pieces by Bach is an example of the latter, based on the author's aesthetic perceptions rather than any discoverable property of the world. ³⁸¹ Such a collection fits far better within the framework of copyright

game card. As for the selection, although Worth's books were the source for many questions, the entire selection of facts in the books and game cards is not substantially similar.

Id.

379. Robert Gorman suggests a similar analysis for a collection of public-domain piano pieces, arranged in order of difficulty:

I can surely secure copyright protection for the sequencing, which represents my subjective judgment (i.e., authorship) regarding increased complexity of execution. I suggest too that the very selection of the pieces, apart from their sequencing, constitutes sufficient authorship for purposes of copyright protection, reflecting an overall judgment regarding the technique-building and pleasant-listening qualities of the pieces chosen.

Gorman, supra note 222, at 572 n.30; see also Denicola, supra note 5, at 530 (arguing that a "collection owes its origin to the author as much as does the manner in which the collection is arranged."). I agree that the selection should be copyrightable, at least to the extent that it is based on taste (i.e., "pleasant-listening qualities") rather than external factors; I am less convinced that the sequence should be protected if it is dictated by "increased complexity of execution," which seems an organization based on judgments about the nature of the public-domain music and the capabilities of pianists, rather than the purely creative faculties of the compiler.

380. A coin price directory might be creative in the sense of Worth's trivia books if, for example, the author chose which coins would be "interesting" to include. However, in CDN, the court found creativity in the prices themselves, not in their selection, coordination or arrangement. See supra text accompanying note 267.

381. See Ginsburg, supra note 31, at 345 ("Feist does not challenge or undermine the long-standing principle that a subjective selection of information, such as the 'best' baseball players or the most socially prominent families, satisfies the minimal creativity standard."). I disagree with Ginsburg, to some extent. The principles of Feist do undermine the potential copyrightability of any such selection, to the external world. If

than the collection of "authentic" pieces by Bach, even if the latter is based upon highly subjective judgments regarding what sounds, or does not sound, genuine.

Where aesthetics are concerned there is no such thing as a "fact." Critics can debate the merits of a film, musical composition or restaurant without ever reaching a definite conclusion, because there is no external reality that makes an aesthetic opinion true or false. Usually a list of the 100 "best" of anything does not purport to reflect a fact, other than the author's feelings; to treat such opinion as copyrightable content does not take anything of "the real world" into the realm of property. It is just conceivable, however unlikely, that the author of a price guide could defend his prices as nothing more than expressions of taste. That, however, should be the issue, not whether the prices are uncertain or opinionated. To be sure, there will be some cases where it is difficult to separate taste from highly opinionated facts. Gorman's example of the "fifty most liveable cities in America," 382 is an example. But if the line drawing is difficult at least it conforms with the fundamental principles of copyright laid down in Feist, and in many cases the distinction can be resolved by looking at what the author purports to offer—a personal reaction or a truth about the world.

IV. CONCLUSION

One can argue, with some force, that facts should be subject to intellectual property rights;³⁸³ perhaps not exclusive rights that would bar the rediscovery and use of facts by independent researchers, but at least rights that would prevent the appropriation of labor, and imagination, by copying.³⁸⁴ Such rights might encourage more research, and more publication of data, to the benefit of everyone. But the law should be consistent. If, as the Supreme Court held in *Feist*, facts are not copyrightable,³⁸⁵ soft facts should not be excepted without both sound reasons and a principled methodology for drawing the distinction. More importantly, if any kind of fact is to be made property, it should be only after a thorough examination of the policies at stake, and a thorough consideration of the appropriate measure of protection. It may well be that the

the "best" baseball players and the most "prominent" families are nothing more than expressions of personal taste, then Feist would not stand in the way of copyright.

^{382.} See supra note 360.

^{383.} Such rights were the subject of bills in the 106th Congress. Collections of Information Antipiracy Act, H.R. 354, 106th Cong. (1999); Consumer and Investor Access to Information Act of 1999, H.R. 1858, 106th Cong. (1999).

^{384.} Professor Denicola argued, prior to the *Feist* decision, that the public's interest in access to information is largely protected if later authors can collect the same facts from the same sources as prior authors, without actually copying from those prior authors. Denicola, *supra* note 5, at 541.

^{385.} Feist Publ'ns, Inc. v. Rural Tel. Serv. Co., 499 U.S. 340, 344-45 (1991).

optimal balance between access and incentives for facts, even opinionated facts, would be struck at a much shorter duration of monopoly than the life-of-the-author-plus-seventy-years term that Congress has recently found appropriate for copyrightable expression. Until Feist is overruled, those who "speak of the world" must allow their observations, like their ideas, to become a "part of the public domain available to every person," reserving to themselves only their manner of expression, of which they are genuinely the "author."

^{386.} See Ginsburg, supra note 31, at 380-81.

Authorship is a complex, expandable, and changeable concept [1]t is the kind of determination better made by a body both [i.e., Congress] capable of gathering and investigating facts that underlie assertions that a given product is the "Writing" of an "Author," and attuned as a result of those investigations to the economic and policy implications of inclusion or exclusion of the production from the ambit of copyright.

^{387.} Feist, 499 U.S. at 347 (quoting Miller v. Universal City Studios, Inc., 650 F.2d 1365, 1369 (5th Cir. 1981)).