Copyright of Compilations in the post-Feist Era

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Program on Information Resources Policy

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Executive Summary

Factual compilations have long been major subjects of contention in the copyright arena. Over the years, courts reached different conclusions about the grounds for granting copyright protection to compilations, and about the aspects of compilations that may or may not be copyrightable.

In 1991, a case involving two publishers of telephone books — Feist Publications, Inc., v. Rural Telephone Service Co., Inc. — the Supreme Court again wrestled with this problem. Its unanimous decision in favor of Feist, the appellant, held that

- the component facts are not works of authorship, hence not copyrightable
- any original material in a compilation may be copyrighted, but such rights do not extend to the work as a whole
- copyright protection may not be granted merely on the basis of the effort expended in gathering and compiling the data
- but it may be granted if the selection and arrangement of the component facts are original and sufficiently creative; this, protection, however, does not extend to the facts themselves.

The introductory section of this paper briefly recapitulates the facts in this case and reviews at some length the Court's analysis of the Constitution's copyright clause and of the relevant provisions of the copyright statute that led to its conclusions.

Subsequent sections discuss in detail the five key terms in the court's opinion — "authorship," "original," "creative," "selection," and "arrangement" — in light of the process by which compilations are typically created and of the market conditions that determine or affect this process. Questions are raised about how the authorship of compilations differs from that of other literary works, about what constitutes "selection," and about the role of computer and other technologies in the selection and arrangement of the component data; and some answers are suggested. The extent to which "selection" or "arrangement" may be deemed "original" and "creative" is discussed, as is the need to develop guidelines to facilitate such judgments and to prevent, or at least minimize, prolonged controversy.

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Foreword

It is a fact of life in the world of publishing that editorial decisions can affect the legal status of a work and, conversely, that legal actions and interpretations can affect editorial decisions concerning a work in progress. This paper explores the interplay of editorial and legal considerations in the business of publishing factual compilations as it may have been altered by the Supreme Court's decision in 1991 in the *Feist* case. Its purpose is not to trace all the relevant litigation that preceded *Feist* nor (with one minor exception) that which followed it or the ensuing literature in the field; and the research for this project had been largely completed before October 1991. The purpose is solely to examine the principles set forth by the Court in *Feist* in the light of the usual practices of the creators and publishers of factual compilations.

The project was undertaken with the expectation that it would be of interest, and possibly of help, to editors, publishers, and others responsible for the development, design, and production of compilations. Some of them may not always be sufficiently cognizant of the interplay of legal and editorial considerations — of how a routine decision on some detail of text or layout may strengthen or vitiate a work's claim to "originality" and "creativity," and with that the proprietary rights in the product. The paper may also be of interest to their legal advisors; those who are not specialists in this field, while well versed in the intricacies of the law, may not be sufficiently familiar with the intricacies of the product.

Lastly, it may be of interest to those in the Congress and in professional organizations who may be involved in future amendments or revisions of the copyright law, or who may be concerned with developing guidelines and criteria for compilers in order to minimize controversy and litigation.

One

The Case, the Law, the Decision

On March 27, 1991, the United States Supreme Court handed down a unanimous decision in a copyright infringement case involving two publishers of telephone directories in Kansas. The case — Feist Publications, Inc., v. Rural Telephone Service Co., Inc., No. 89-1909 — had attracted little attention in the information and publishing fields during the nearly four years that it had taken to wend its way through the judicial system; but with the Supreme Court's ruling this changed dramatically. In several cases during the previous seven or more decades the Supreme Court as well as lower courts had sustained copyright claims based on the "sweat of the brow," the effort expended in creating the works in question. Now, in the Feist decision, the Supreme Court rejected this argument as unsupported by either the Constitution's copyright clause or the copyright law, and posited "originality" and "creativity" as the sole grounds for copyright protection of factual compilations.¹

This paper explores the bases for the Court's ruling and its implications and likely effects. Did the Court clarify a murky chapter in the annals of intellectual property disputes, or did it merely substitute one set of problems for another? Is the prospect now for less contention over proprietary rights in compilations, or for more, and more virulent, controversies?

In the case at issue, Feist Publications, Inc., a publisher of regional telephone directories, had asked eleven local telephone companies for licenses to incorporate their listings in a single, area-wide compilation. All had agreed but one, Rural Telephone Service Co., Inc. Feist nevertheless copied a substantial number of Rural's listings and included them in the compilation. Feist admitted the copying and conceded that Rural's directory had a valid copyright, but argued that the material copied was purely factual, that facts are not protected by copyright, and that it had therefore not committed any infringement.

The District Court rejected Feist's argument and granted summary judgment to Rural in 1987, citing a string of precedents but not addressing the issue of whether a routine compilation of facts (in this case, names, addresses, and telephone numbers of local subscribers) was, indeed, protected by copyright. The Circuit Court of Appeals sustained the

District Court's ruling, also without tangling with the principle. The Supreme Court, finding that there was a significant Constitutional and statutory issue involved — and evidently cognizant of the checkered history of similar cases brought in diverse and divergent districts and circuits — agreed on October 1, 1990, to review the case, heard argument on January 9, 1991, and issued its decision ten weeks later. Reversing the lower courts, the Supreme Court held unanimously that there had been no infringement because Rural's directory consisted solely of factual data and was neither original nor sufficiently creative in the selection and arrangement of the data to merit copyright protection.

Article I, Section 8 of the United States Constitution details the powers of Congress and in paragraph 8 empowers it "To promote the progress of science and useful arts by securing for limited times for authors and inventors the exclusive rights to their respective writings and discoveries." Two conflicting goals are embodied in this terse and seemingly unequivocal statement: To enable the public to benefit from and build upon the creations of authors, artists, inventors, and scientists freely over the long term, and to encourage the authors, artists, inventors, and scientists with a short-term economic incentive, in effect a limited monopoly in what they created. The successive versions of the copyright law were designed to accomplish this dual purpose in the context of contemporaneous conditions (including the state of technology).

In the 1909 revision of the statute, "Directories ... and other compilations" were specifically included among types of works that might merit copyright protection. The latest enactment, the Copyright Revision Act of 1976,² 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." It does not define "original" and "authorship," but it makes specific provisions in regard to compilations (sec. 103), especially that "The copyright in a compilation ... extends only to the material contributed by the author of such work, as distinguished from the preexisting material employed in the work, and does not imply any exclusive right in the preexisting material."

Why all this fuss about compilations? Because they are a cornerstone of the modern economy and essential in the gathering and dissemination of knowledge. We take them for

granted and never stop to consider what we would do without telephone books, mailing lists, atlases, biographical dictionaries, directories of corporations and government agencies, directories of people in business and the professions, handbooks of associations and societies, guides to schools and colleges, parts catalogs, catalogs of the holdings of libraries and other repositories, indexes of books and periodicals, travel, entertainment, and restaurant guides, indexes and other finding aids for collections of data in specific disciplines or groups of subjects, and statistical compilations such as polls and market profiles. And in the last quarter-century more and more of these compilations have appeared as databases in electronic form, readily searchable by computer from remote terminals, as well as in print on paper, and in some cases the electronic format has supplanted the print product altogether. An entire industry has grown up around the development of such compilations, with a startling increase in the variety and quantity of products and services and a steadily growing market. There can be little doubt that the Feist decision — at least as far as the application of the copyright law is concerned — will have a profound impact on this industry, on information providers and users alike.

Of course, copyright is not the only means to protect an author's proprietary rights. For some types of works, patents, trademarks, or trade secrets laws may be more appropriate and more effective. For published compilations, protection may also be obtained through state laws against unfair competition or through purchase, licensing and subscription contracts that forbid or limit copying or other uses to which the author/publisher may object.³ As interesting as these topics might be, they are outside the purview of this paper, as are the possibilities that other cases may come along that will prompt the Supreme Court to modify or reverse the Feist decision, or that Congress will once again revise the copyright law. This paper is concerned with the Feist decision and its immediate ramifications, nothing more. It assumes that despite difficulties and controversies copyright remains in most instances the preferred means of protection for compilations, and that for the time being the Feist decision is in this respect the law of the land.

It may be some time — perhaps even a few years — before sufficient data have been accumulated to document the effects of the decision convincingly, but one may reasonably speculate about them:

- Some players in the information marketplace will view the Feist ruling as an
 invitation to exploit existing compilations, copy their data, and thus create
 competing products with only minimal changes in format.⁴ Presumably, the price
 would be lower, since no investment for the initial fact-gathering would have been
 required.
- Many such products are likely to be of poorer quality than the originals, partly because of efforts to minimize production costs and partly because of pressures to rush them to market.
- The primary producers, fearing that the fruits of their labors will be reaped by others, may shun the risks entailed in creating and marketing new products. They may also restrict the distribution of and access to their works, perhaps through relevant prohibitions in their purchase or subscription contracts.⁵
- As a result of the foregoing, the consumers will be deprived of some compilations
 they might have found useful; they will also face a bewildering array of "original"
 products and quasi-copies; and they may be induced to acquire some products of
 dubious quality.

The Supreme Court, however, is concerned not with the practicalities of the marketplace but with the principle of the Constitution and the law; and so it accepted Feist's argument that facts are not subject to copyright protection. Its opinion, written by Associate Justice Sandra Day O'Connor, focused on the terms "fact" and "author," holding that facts are "discovered" but not "created" by an "author" and therefore outside the purview of the Constitution's copyright clause and the copyright statute. "To qualify for copyright protection, a work must be original to author.... Original ... means only that the work was independently created by the author ... and that it possesses at least some minimal degree of creativity." A compilation of facts that shows the requisite originality and creativity in the selection of the facts included and in their arrangement may qualify for copyright protection, but the facts themselves do not. The facts in a compilation may be copied "... so long as the competing work does not feature the same selection and arrangement."

As already noted, the Court also rejected arguments, offered in several earlier cases and cited as precedents by the lower courts in the Feist case, that copyright protection may be granted for a work solely on the basis of the effort expended in creating it — the "sweat of the brow" rationale.

But under what conditions does a compilation merit copyright protection if neither the constituent data nor the effort and expense of amassing them merit it? The Feist decision provides an answer of sorts, but hardly one that will lessen controversy and litigation over claims of proprietary rights, let alone provide an absolute solution to the problem. Here are the salient passages from Justice O'Connor's opinion:

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....

After several paragraphs of elaboration and discussion of the limits imposed by "the facts/expression dichotomy," Justice O'Connor continued:

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 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.

Under this interpretation, Rural's claim that Feist's copying infringed on its copyright was found wanting. In the words of the Court,

The selection, coordination and arrangement of Rural's white pages do not satisfy the minimum constitutional standards for copyright protection.... The end product is ... devoid of even the slightest trace of creativity. Rural's selection ... lacks the modicum of creativity necessary to transform mere selection into copyrightable expression.... Nor can Rural claim originality in its coordination and arrangement of facts ... there is nothing remotely creative about arranging names alphabetically in a white pages directory....

Before reaching these conclusions, Justice O'Connor had discussed the 1976 statute and found that the key phrase concerning factual compilations is the one that

instructs courts that, in determining whether a fact-based work is an original work of authorship, they should focus on the manner in which the collected facts have been selected, coordinated and arranged ... however, the originality requirement is not particularly stringent ... novelty is not required. Originality requires only that the author make the selection or arrangement independently

... and that it display some minimal level of creativity. Presumably, the vast majority of compilations will pass this test....

The statute does not, however, define "authorship," does not give any description of "selection" and "arrangement," and does not provide any criteria for determining "originality" and "creativity" in regard to them. (Nor does it explicitly "instruct courts.") What Anthony Lewis wrote in *The New York Times* in a totally different context is eminently applicable here:

Legislative language is often obscure. Congress likes to fudge hard issues, leaving them to judges to decide as they puzzle out the intention of a statute. Sometimes it is only a judicial decision that concentrates the minds of legislators and makes them say what they mean.⁶

Evidently, Justice O'Connor believes that this is what Congress did in wording the copyright law, for she inferred instructions to the courts.

But if Congress was unable or unwilling to supply the definitions and criteria, are the courts any better equipped to do so? The Office of Technology Assessment (OTA) was quite skeptical about this in its 1986 report *Intellectual Property Rights in an Age of Electronics and Information* and recommended establishing a new, central coordinating agency to deal with such matters. However, it must be noted that this report dealt with the entire field of intellectual property, not only compilations, and preceded the Feist case by nearly five years. And it must also be noted that the OTA is an arm of Congress and as such unlikely to find a branch of the government better able than its own to devise solutions to knotty problems. But as to the new agency the OTA proposed, what assurance is there that it would be able to provide the criteria and devise the solutions?

A close reading of the Feist decision indicates that a better understanding of how compilations are produced and to what extent they can be "original" and "creative" in "selection" and "arrangement" might help to develop useful definitions and criteria. And if these are developed, they might serve to guide compilers in claiming copyright and in considering the use of material from existing compilations, to guide the courts in adjudicating allegations of infringements, and to guide Congress if it undertakes — as it surely will, eventually — another revision of the copyright law.

Two

"Authorship" of Compilations

Compilations do not have authors in the sense that other written works⁸ — novels or poems or articles, etc. — have authors. (My dictionary defines "author" in part as "the composer of a literary work, as distinguished from the compiler....") Any of the following distinctions apply:

A compilation comprises discrete data brought together by the compiler. The original creators of the data (if, indeed, they were "created" and not merely recorded) have no part in creating the compilation. Other types of works are created, whether or not they are original, by an individual or several people working together.

Compilations are reference works. Their principal use is to locate needed information presumed to be contained in one or more of the component data. Other kinds of works are (or are intended to be) intrinsically entertaining or educational or both. (The constituent data elements in a compilation may be entertaining or educational, but hardly the compilation as a whole.) To put it another way: While other works are generally used for their own sake, compilations are never anything but a means to an end.

The creation of compilations is market-driven to a far greater extent than that of other works. A compilation's sole *raison d'être* is to meet a perceived need for information among an identifiable user community.

In fact, the life cycle of a compilation usually begins with the perception of such a specific need for certain information by a specific user community. Until a few years ago, for example, restaurant guides were composed of reviews by professional critics who were culinary experts; then the Zagats found that many people would prefer guides that would reflect the views of ordinary diners. Many other examples come readily to mind: Originally, there was Who's Who in America; then the several regional Who's Whos and those for specific professions and disciplines were added. And, from my own experience, The New York Times

Index was followed, in response to market needs, by The Information Bank® and separate indexes to *The Times*' book, movie, and theatre reviews and to its obituaries.

It would not be at all unusual for a prospective compiler, once the idea of a new work had been conceived, to order a survey of the potential market, thus making use of one compilation of facts to determine whether or not to proceed with the creation of another.

The production of a compilation is normally a corporate enterprise involving a team effort; I know of no compilation, other than perhaps a back-of-the-book index, that is produced by an individual working alone.

Quite frequently, it is the person familiar with and attuned to the market who spawns the idea for a new compilation. An equally essential team member is the person who is thoroughly conversant with the source(s) from which the component data will be drawn. Together with the publisher, they determine the scope of the work, whether it is to be issued recurrently or one time only, whether it will be in a fixed medium like a printed book or a dynamic medium like a computer database, and at what intervals it will be issued or updated.

The team also includes, usually, someone who supervises the data collectors — the rank-and-file of the enterprise — and their input, and professionals who design the format of the work and edit the completed product. If computer operations are involved, the team also requires systems analysts and programmers to create and maintain the software for data capture, corrections and editing, search and retrieval, and data output. All these people are necessary for the initial development of the compilation; those needed in subsequent aspects of the project are additional.

From this description it appears evident that, as I said earlier, compilations do not have authors in the sense that other written works do. Copyright is vested, typically, in the corporate entity under whose aegis the project is carried out, and this entity comprises and represents the team whose individual members are responsible for the separate functions described above. These individuals may be co-owners of the corporate entity, or employees, or contractors. None of them individually can be said to be the "author," any more than the people who gather and input the data.

Three

"Originality" and "Creativity"

Given the process of conception and development as outlined here, what elements of a compilation can make it original? Certainly not the constituent data themselves, which are either taken from existing sources (as Feist took the names, addresses, and telephone numbers from the local directories) or supplied by the original sources (in the Feist example, the telephone subscribers themselves). Nor is the wording of the component facts likely to be original; as Justice O'Connor put it, "many compilations consist of nothing but raw data—i.e., wholly factual information not accompanied by any original written expression." So what may be original in a compilation is

- the fundamental concept of the work, or
- any explanatory or other accompanying text, or
- any enhancement of the data by additions, or
- the selection and arrangement of the data, i.e., the overall design of the work.

A glance at the reference shelves of even a small local branch library will confirm that the range and variety of compilations available are truly astounding. Then consider the range and variety of additional compilations in print and accessible on computer terminals at a large research library; and look at a current list of Information Industry Association members and their products (itself a respectable compilation): they all attest the originality and inventiveness of compilers. But the concept, the initial fruit of this inventiveness, is not copyrightable.

The statute says: "Copyright protection subsists ... in original works of authorship fixed in a tangible medium of expression.... In no case does copyright protection ... extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is ... embodied in such a work." 10

So the concept of a biographical dictionary, the concept of a community census, the concept of a videotext information system, no matter how original, how novel, how useful, and how brilliant it may be, cannot be copyrighted; only the product that embodies the

concept may be eligible for copyright, so long as it meets the criteria of originality and creativity in other respects.

Any original accompanying text in a compilation can be protected by copyright. Such a text may include a dedication and acknowledgments and introductory material about the purpose and scope of the work, how to use it, what the entries consist of, and how they were selected and arranged.

All such material is commonly found in printed compilations. Those offered in electronic form have far less explanatory text because of the limitations of the video screen, even if the software and storage medium would accommodate it. Here, ancillary text displayed on-line is normally confined to prompting, "help," and error messages, although many systems display introductory "bulletins" at the start of each session. Typically, users of electronic compilations are offered a printed manual or user guide which contains this type of material in full — and which is copyrightable, of course, as a separate work.

If the ancillary material is incorporated into the compilation itself and if it is original (i.e., not copied from another work), the compilation may be copyrighted, but, as the Feist decision explains,

This protection is subject to an important limitation. The mere fact that a work is copyrighted does not mean that every element of the work may be protected ... protection may extend only to those components of a work that are original to the author.¹¹

Although the Supreme Court did not address this issue explicitly in its opinion in the Feist case, the component entries in a copyrighted compilation may be protected if there is sufficient value added that is original to the compiler. Here are several examples (some real, some hypothetical) of compilations of strictly factual data and the enhancements that may make them protected:

- Restaurants listed by location and type of cuisine, with critical comments, recommendations, and ratings
- Theatrical performances, movies, or TV programs listed with added synopses and critical comments

- A newspaper index identifying articles by headlines, bylines, and location, with added informative abstracts
- A listing of communities in a state or region with population and economic statistics, with added original projections for economic growth or decline
- A compendium of law firms specializing in a certain area of the law, with added data about the more important cases handled and the number of cases won or lost
- Price and trading volume of selected securities, with added original graphs and evaluations
- A listing of members of Congress and their voting records on key legislation, with projections of how they will vote on pending bills and how they will fare in the next election¹²

The extent to which such enhancements may protect the entries as a whole is open to question, but it seems to me to depend not only on whether the unprotected factual data would be useful enough without the protected additions but also on how difficult and expensive it would be to copy the former without copying the latter. For example, newspapers usually print factual information about restaurants, films, plays, and other entertainments in boxes adjacent to but separate from the critical reviews, and list sports results in separate tables; these could be clipped and copied (or retrieved on the computer terminal and printed out) easily. If these factual data were scattered through the descriptive or critical articles, much more effort would be required. So, the answer may be intensely practical: If the factual elements alone can be copied with little effort and expense, the host compilation may be raided with impunity; if the factual elements are virtually inseparable from the enhancements, then the whole work is protected, de facto if not de jure.

So we come back to the heart of the Feist decision, the ruling that whether or not a factual compilation can merit copyright protection will depend chiefly on the degree to which the selection and arrangement of the component data are "original" and "creative." But it is necessary first to examine these two attributes.

The statute uses the term "original" but does not use "creative." Justice O'Connor held that originality comprises two elements, independent creation (i.e., no copying) and some creativity. In this, she leaned on the Supreme Court decision in the 1879 Trade-Mark Cases¹³ ("The Court explained that originality requires independent creation plus a modicum

of creativity ...") but returned to it in discussing "the originality requirement" and, finally, in passing judgement, saying that "Rural expended sufficient effort to make the white pages directory useful, but insufficient creativity to make it original."¹⁴

The distinction between the two attributes is far from clear in the Feist decision, and perusal of the dictionaries does little to clarify the problem. Justice O'Connor said that "Originality does not signify novelty"; but the dictionary defines "original" as "arising or proceeding independently of anything else," which certainly seems to imply novelty. The dictionary also defines "creative" as "resulting from originality of thought, expression, etc." and defines, "originality," in one sense, as "ability to ... express oneself in an independent manner; creative ability." One must ask, is "creativity" an element of originality, or is it the other way around? Or both?

It can be safely asserted that "original" means not copied or imitated or paraphrased or closely adapted from something else. An original work need not be novel in kind or genre, but the individual work within that kind or genre must be novel. To the extent that it differs from every other work of the same kind or genre it exhibits some creativity.

And the term "creativity" does imply some measure of originality. We cannot conceive of a work as "creative" if it is an exact copy of another work. To be deemed creative, a work must be nonimitative in some significant aspect.

Originality can be established empirically, by comparing a work with all similar works and identifying the differences, if any. (Hypothetically, two very similar works could be created independently, without one being copied from the other, although in practice this is most unlikely.) But creativity implies a critical assessment of the differences, which is bound to be subjective. Do they enhance the value of the work? Do they widen the range of its applications, facilitate its use, or make it more pleasing aesthetically?

All the foregoing leads back to Justice O'Connor's conclusion that the copyrightability of a compilation hinges on "... the manner in which the collected facts have been selected, coordinated and arranged ..." with a final determination that "... the selection or arrangement

[was made] independently ... and ... display some minimal level of creativity." How can such a determination be made?

Four

The Process of Selection

Data selection, as described above, precedes all steps in the production process except the initial conception of the work and market assessment. It entails two phases:

- 1. Choosing the source or sources from which the data will be taken, which may be
 - a) primary sources, as by direct observation or interview, or
 - b) secondary sources, e.g., an existing compilation.
- Selection from the sources of those data that best fulfill the purpose of the work and meet the demands of the prospective users.

The Feist case serves neatly to illustrate these:

- 1a) Rural obtained the data for its directory directly from primary sources. As subscribers applied for telephone service they supplied their names, addresses and other data, Rural compiled these and then assigned the telephone numbers normally a mechanical process and presto! there were the entries for the directory. Original, in the sense of not copied, yes; but hardly creative.
- 1b) Feist derived the data for its regional directory from secondary sources, namely, Rural's and the other local telephone companies' existing directories. Thus its listings were neither original nor creative, though users might consider the **concept** of a regional directory creative and the product more useful than eleven separate directories.
- 2. But Feist did not use all the entries in Rural's and the other local directories. It selected only those that fell within the geographic area of the planned regional directory, and eliminated the others. (It also enhanced the entries by providing street addresses, which Rural's directory generally omitted; but that has nothing to do with selection.)

Like Rural's telephone directory, many kinds of compilations are transaction-generated:

Mailing lists, voter registration lists, lists of motor vehicle owners and drivers, police records,
rosters of professional and civic organizations, and the enrollment and graduation records of

educational institutions, to name just a few. These compilations are transaction-generated because the entries are created by individuals' applications, fee payments, and other routine transactions. The compilers do nothing to create the entries except set the original parameters, though they may modify and enhance them. Since the "author" contributes nothing original or creative other than, possibly, the underlying concept, transaction-generated compilations would probably fail the Feist test and not be copyrightable.¹⁵

This is also likely to be the fate of another kind of compilation, that created by direct observation and recording of facts. Examples that come to mind include a census of trees in urban parks, a survey of the volume of vehicular traffic at chosen intersections on different days of the week at different times, or a count of the viewers of specific television programs at the start and the end of the season. The sources are the selected phenomena or events, and the entries are obtained by observing and recording, which is usually mechanical (literally and figuratively). Our society has many uses for such compilations and is often quite dependent on them; but that does not make them — again, except for the underlying concept — original or creative.

It is a quite different matter for a third major kind of compilation based on primary sources: surveys and polls, whose component data are obtained in response to specific questions posed by or on behalf of the compiler. Surveys and polls require great care and ingenuity in defining the topic(s) to be covered, phrasing the questions, providing a structure for the responses that will insure that the answers will be substantive and to the point, selecting the respondents, planning how to coordinate and assess the responses, and — finally — summarizing them accurately.

All this necessitates a substantial measure of creativity, whether the poll or survey is the first in its series or a repetition. The first ones are original by definition; and even the subsequent ones are likely to show some originality in the adaptations made — additions, deletions, or rephrasing of questions — to changes in the time and the context.¹⁶

To recapitulate: Compilations of factual data derived either from transactions between individuals and the compiler or from direct observation are unlikely to pass the Feist test of

originality and creativity in the selection of data; but those based on surveys and polls would probably pass this test.

Another, altogether different type of compilation, posing altogether different copyright issues, is based on already existing works. Such a compilation may either combine data from several works (like the annual New York Times Index, which cumulates the entries of twenty-four semimonthly issues) or extract a subset of data from a more comprehensive work (like the "Easy Reference List" of the telephone book's "blue pages"). To complicate matters further, there are also hybrids, works that cumulate subsets of data extracted from several compilations (probably the best known is the World Almanac); and all have proliferated enormously since the advent of the computer (about which more later).

The valid copyright of existing compilations carries over, presumably, to a work that cumulates and combines them. But if the underlying works are not copyrighted, then a cumulation of them would have to meet the Feist test to merit protection, i.e., the selection of the underlying works would have to be original and creative. Cumulations of several issues of a single serial compilation (for example, a cumulation of the weekly calendars of meetings of the United Nations) would probably be considered insufficiently original or creative, even if they turned out to serve a useful purpose. But original combinations of a variety of lists may come up to this standard; examples might be the lists of community, professional, and commercial services put together by the Welcome Wagon, or *Current Contents*, which cumulates the tables of contents of a host of periodicals both on-line and in print.

Such works might qualify for copyright protection, it seems to me, despite the use of preexisting materials verbatim, because they offer an original combination of these materials as a novel and highly useful product. They surely show creativity, though it lies in the concept rather than the execution. In contrast, the copyrightability of Feist's regional directory (which was not at issue in the litigation) is most doubtful, since it is a perfectly commonplace cumulation of the local directories. It renders a useful service but is neither original of its kind nor creative in concept or in bringing disparate elements together.

The preceding paragraphs deal with works that compile the contents of one or more sources in their entirety. Still other variables are introduced by works that compile not all but

only selected data extracted from one or more sources. Here the selection process is in two stages: first, choosing the sources, and, second, choosing the data to be extracted.

In most of these cases it does not matter whether the source works are copyrighted, because the copyright extends only to the work as a whole and not to the component data. What matters for copyrighting the resulting compilation is that the choice of sources and the choice of the data extracted from them be original and creative. That test would be passed easily, in my opinion, by the voters' guides issued by diverse civic organizations, which extract the more significant statements from party platforms and the speeches and news releases of the candidates; or by the periodic reports on the status of the economy, which combine the several economic indexes and indicators with brief excerpts of the assessments and forecasts by leading economists, market analysts, and other pundits.

Compilations of data extracted from a single source are usually prepared by the publisher of the underlying work or an agent or licensee. They would have ready access to the data, would probably have the most efficient means of extraction, and presumably are most knowledgeable about the subject and the market. For example, national directories of physicians, lawyers, or other professionals may yield subsidiary directories by specialty or by location, often quite profitably, since they require only modest effort and expense. And if the "parent" directory has a valid copyright, having met the Feist test, then the "offspring" (whether produced by the same publisher or a licensee) would probably merit protection as well.

Compilations of data selected from multiple sources require the most planning and ingenuity and the greatest effort, but are most likely to meet the standards of originality and creativity. Among printed works of this type a prime example is American Book Prices Current, an annual publication that lists the latest prices of rare books and manuscripts and derives its data from the major auction catalogs and sales reports. Many on-line compilations fall into this category, for example, Trade and Industry Index, PTS Annual Reports Abstracts, or PHI Net Fedtax.

Five

The Role of Computers in the Selection Process

Computer technology has played a crucial role in the proliferation of compilations, in the quantity and variety of products, and in the way these products are distributed and used. Until the late 1940s compilations could be produced only by manual methods: visual selection of the data elements and either copying them or physically removing them from their source, and cumulating them by moving sticks of type or shingling cards or cutting and pasting pieces of printed text, all equally laborious, costly, and time-consuming. (Also, several of these procedures destroyed the original, which sometimes presented problems.)

With the advent of the computer, and especially after the development of random access systems in the early 1960s, all this changed radically. If the source materials were in machine-readable form (or could be converted by scanning or other means), the selection could be accomplished by entering the parameters, i.e., the selection criteria, in the language and format required by the system software, limited only by the degree of sophistication of the software programs. The selected data would be siphoned off (actually, copied) and recorded on a separate part of the disk or a separate tape or a printout, as specified, all automatically and without disturbing the original.

The computer could also select data from several sources (if the software to select the data is compatible with the programs required for reading the source material) and combine them on a spin-off disk or tape, and could also arrange them according to programmed instructions. With the development of data communications networks it has become possible to select material from multiple databases housed at diverse remote locations, assemble, augment, and arrange the data, and provide access to the resulting compilation to users by telecommunication.

When Congress undertook the revision of the copyright law in the early 1970s, it did so largely because of concern over major developments in reprographic and computer technology and their effects on the creation, dissemination, and uses of intellectual property. These concerns prompted the formation of the Commission on New Technological Uses of

Copyrighted Works (CONTU), to offer recommendations prior to the enactment of the 1976 revision. The statute also provided for continued monitoring of these effects by the office of the Register of Copyright.

In the intervening fifteen-odd years there has been considerable speculation about these effects, ¹⁷ but none of the copyright cases that have reached the Supreme Court has centered on the issue of technology. Nor did the Feist case; although surely neither the local directories nor Feist's regional compendium were compiled by hand, "computer" and other terms describing the technology are not to be found in Justice O'Connor's opinion. But one must ask: Is a compilation less copyrightable if computers were used in the selection and arrangement of the data than if that had been done manually? Or, to put it another way, can a work generated by automated processes be original and creative?

My answer would have to be that we are still a long way from a thinking and autonomously productive machine. The computer system — hardware and software — was developed by human beings, and, however sophisticated it may be, it is still a tool governed by human brains. The software that selects and cumulates data for a compilation is a product of the human mind (and may itself be copyrighted). If developed specifically for a compilation project, a compilation's originality and creativity may be found largely in the software with which it was produced; and if the software is a set of general utility programs acquired "off the shelf," then the originality and creativity lie in its application to the particular project and in the compilation produced thereby.

As for the selection of the sources of data for a compilation, that certainly entails human endeavor. Even if a computer system is instructed to scan a directory of on-line databases or a catalog of all the sources covering a given subject or discipline, it takes a human "author" to formulate the search algorithm, to identify and connect with the database(s) to be scanned, and to evaluate the results. If a court were to rule that the selection of sources for a compilation was original and creative, would it rule differently if told that the process of selecting these sources had been computer-assisted?

Some types of compilations by definition preclude any selection of data from the source; they require, as William Patry put it in an article on the Feist case¹⁸ while the appeal was

pending, that "the entire universe of data from one source is included." Of the many examples of compilations Patry listed, genealogies, parts lists, membership rosters, and organization charts would certainly fall into this category — their purpose necessitates absolute comprehensiveness. And where all the data are taken there is no selection.

But "absolute comprehensiveness" depends on the purpose of the compilation, and not on whether the data are being taken from or transferred to a computerized database. (Although computers greatly facilitate the transfer, the taking of all the data can also be accomplished manually.) The converse is also true: Just because a compilation is a computerized database it cannot be assumed that it contains exhaustive data on its topics; many databases contain only selected material from their sources.¹⁹

Finally, computers can play a major role in the selection of data from the source. With precise instructions embedded in the proper algorithm, a computer can scan enormous quantities of data at incredible speed and pick out the data requested. (This is the same procedure followed by researchers retrieving information on-line; in fact, the compiler here has become a user.) If the selection of the data in a compilation is found to have been "original" and "creative," it should not really matter whether it was accomplished by computer search or by a human researcher. The originality and creativity lie in the criteria for selection in order to fulfill the purpose of the work, and not in the method by which the selection is implemented. There is no qualitative difference between drafting a retrieval algorithm and issuing a set of instructions to a research assistant or a law clerk.

Arrangement of Components

Compilers who are concerned with proprietary rights in their products are likely, after having selected the sources and the kinds of data for the compilation, to concentrate their efforts on the arrangement of the data, for that is where they can best display their ingenuity and individuality and lay claim to having been original and creative.

The term "arrangement" applies to many different aspects of a compilation and to many different steps in its production. It covers the order of entries in the list as well as the order of data elements within each entry. It covers matters of content, such as the relative significance of data, as well as matters of layout and design. The question of originality and creativity may arise in regard to any of these. The more common aspects, for both printed and on-line compilations, will be discussed here, but no attempt is made to cover all aspects exhaustively.

The purpose of "arrangement" is to enable quick, easy, and accurate retrieval of the information the compilation contains. Every aspect of the arrangement must serve this goal. This often necessitates the use of obvious, unoriginal devices; for example, entries in telephone white pages must lead off with the subscribers' names, which (for a given locality) must appear in alphabetical order. No other arrangement would be as effective or convenient, and any claim of originality and creativity will have to be based on other aspects.

When all the entries in a compilation are of the same kind — all proper names, as in a telephone book, or all corporate names or symbols, as in a stock market listing — their arrangement is relatively simple and obvious, and therefore unlikely to be particularly original. Far greater complexities arise when a mix of proper names, place names, titles of works, and common nouns ("subject terms") is being compiled, as in a library catalog, or when a compilation must interweave numerical (e.g., chronological) and alphabetical entries (e.g., a listing of streets). While the preferred order of entries in such works may have been established generations ago (as, for example, the "person, place, thing" order of homonyms in library catalogs) and more recent works may merely be following tradition, changes in the

language and changes in the technologies of compiling and displaying the listings may necessitate amendment or adaptation of the "rules" and thus entail a fair amount of originality and creativity.

Even the humdrum alphabetical listing of the white pages is subject to creative variation. Many years ago the entries for all government agencies were moved to a separate section of "blue pages," and more recently business and professional subscribers were listed in a separate section following the listing of residential subscribers. Both changes were evidently designed to make use of the directory more convenient and the information more readily accessible. (Claims of originality and creativity are much more easily made and sustained for the Yellow Pages directories, on the basis of terms chosen for the various classes of goods and services, the classification scheme, the internal cross-references and the index in the back, and the subsidiary listings by area or other topical parameter.)

It ought to be pointed out that what is often called the "simple, straightforward alphabetical order" is hardly ever simple or straightforward. Typical problems include: Is the order word by word or letter by letter ("Trans World" before or after "Transamerica")? Are abbreviations words (Where to enter "TWA" — before "Ta..." or at the start of "Tw...")? Are numbers words (where to enter "100 Year Club" — in a separate numerical section, or under "Hundred ..." or "One Hundred ...")? And how to cope with Hispanic, Asian, and other "foreign" names, names with hyphens or virgules, names with prefixed articles or prepositions (if Wernher von Braun is listed under "V", should Ludwig van Beethoven also be listed there?), and the myriad other variants to which proper names are subject?

Such problems are solved in different compilations with varying degrees of success — more in biographical dictionaries, less in telephone books, and not at all in some works whose compilers seem to be unaware that problems exist. Justice O'Connor's dictum that "... there is nothing remotely creative about arranging names alphabetically ..." is, I think, an exaggeration; but even elegant original and creative solutions, dealing as they do with minutiae, do not seem promising grounds for granting copyright protection.

So far, the discussion of "arrangement" has focused on the first part of each entry, the one that determines its position in the list. But there are usually several data elements within

an entry, and their order is also a significant aspect of the "arrangement." The number of such data elements depends on the type of compilation involved and can vary widely. The greater the number of discrete data elements, the more important the order in which they appear and the greater the opportunity for creativity.

In the telephone white pages, the number is limited and the order obvious: last name, first name, initial, professional title (optional), street address (optional), and telephone number. In more complex compilations, the number of facts for each entry can be quite large and their order, far from obvious, may be an important factor in making the work useful and attractive. For example, in a *Who's Who* or other biographical dictionary, entries could start with the general identification or the best known achievement of a biographee; but could also — on the assumption that anyone looking that person up would already know this — start with the date and place of birth and proceed through the career chronologically. (Another choice might be to arrange the facts in subsets, such as professional career, education, family, awards, publications, etc.) Entries in gazetteers are subject to similar choices; they can open with a general description of a place, or its precise location, or the start of its geological or geopolitical history.

Choices like these are not made in a vacuum; they are integral parts of the planning and production process. Within their budget limitations compilers try to create attractive products that meet the expectations and satisfy the demands of their customers. It is in that context that they exercise their creativity; they may be interested in innovation, but not for its own sake.

The physical appearance of a compilation is of enormous importance in attracting and satisfying users. The ability to locate desired information depends as much on the physical layout of the page and the legibility of entries as on the order of entries and their component elements — and this applies to the screen of a computer terminal as much as to print on paper.

On the printed page, the principal considerations are the typeface and the size of the type, margins, spacing between the lines, indentations, and length of line and column. In contrast to other printed texts, lists are usually printed so that the first line of each entry is flush left and runover lines are indented.²⁰ (For the first time, in the 1991-92 edition of the Manhattan

telephone white pages last names are not repeated but are printed in slightly larger and bold type, with the first names of all people having the same last name indented below it.²¹)

Bold type is commonly used not only for the first part of an entry, which determines its position in the list, but for particularly important data elsewhere in an entry, or for the headings of subsets of data. Other common devices that make the use of printed compilations more efficient and convenient include rules between columns, continuation headings, thumb notching of pages, and the like. It is quite an art to design a printed compilation so that its key elements can be located easily and yet so that the pages do not appear crowded or monotonous or confusing.

It is as much if not more of an art to achieve this on the screen of a computer terminal. The font and size of type are severely limited, and so are the number and length of the lines displayed. Flipping and skimming pages of a printed work is so routine that most users are not even aware they are doing it. Going through the corresponding steps — i.e., scanning successive "pages" displayed on a video terminal to locate the desired data — can be very tiring and exasperating. Therefore, the designers of computerized compilations must try their best to minimize if not eliminate that strain. They can accomplish this by steering the user as directly as possible to the desired data, by making the screen display attractive and easy to scan and the entries easy to read, by providing useful guideposts within the listing, and by making it easy to skip from one section of the list to another. For all this they must rely on the finding and retrieval mechanisms embedded in the software and their interaction with the structure and components of the entries. That is the crux of an elusive but essential element sometimes referred to as the "look and feel" of the software but more often as "user friendliness."

It is in "user friendliness" that originality and creativity — especially creativity — come in.

Sometimes the software is created specifically for a particular compilation, as it was, for example, for the original New York Times Information Bank. In the twenty years since then, general software packages such as those developed by Lockheed-Dialog, System Development Corp., and Mead Data Central have been used for, literally, hundreds of databases. The

software may be protected in its own right,²² but this would not affect the copyright status of the databases.

The initial arrangement of data in a computerized compilation involves a collaboration between the database producer and the software designer. Together, they determine the initial nature and order of entries, the basic structure of the entire list, the number and nature of discrete components of the entries, and the way specific data elements must be coded to permit direct access, so that users can locate and retrieve desired information accurately, quickly, and conveniently.

Some examples may help to explain the interaction between the data and the software. A computerized restaurant guide may enable users to find restaurants not only by name but also by cuisine and location. Users of a computerized directory of physicians should be able to locate specialists by specialty and location and also by their hospital affiliations. In a compilation of news, it must be possible to differentiate feature articles, commentary, and letters to the editor from straightforward news reports. In all three cases, the software must instruct the user how to enter the appropriate search parameters and must be able to recognize the requested data elements within the entries; and the compiler must have so constructed the entries that the requested data elements can be recognized. If the interaction works well, it is due to the creativity of the data producer as much as to the programmer. Neither is solely responsible for the "arrangement."

There appears to be a certain mystique about computers, however. Quite often one reads or hears that databases are being compiled without the benefit of human creativity. So Oakley in the Network Planning Paper #17:

The potentially copyrightable parts of factual databases include any original material, and the selection, arrangement, and presentation of the factual information, as well as the means by which the information is searched. But, for online databases, neither the "sweat of the brow" rationale nor the selection and arrangement criteria seem particularly compelling. With the help of computers, many databases can now be compiled automatically or can be derived automatically from other available information. They can also be reorganized automatically and presented in new and different ways with little or no creative work on the part of an "author."

Or Caledonia, more dogmatically: "... databases have no copyrightable 'arrangement' of the data they contain. It is the software which sorts the data into the form requested by the searcher."²⁴

Undoubtedly, some databases can be (and have been) established by deriving data mechanically from one or more sources and compiling them in accession order; and no one would argue that their data are presented in a "creative arrangement" on the basis of which copyright protection might be justified. But many, and perhaps most, of the compilations listed in directories of on-line databases appear to have their entries arranged by some human intelligence, thoughtfully and creatively, for optimal access and retrieval. If such a database would be copyrightable in its initial form it should remain so even if users siphoned off and rearranged subsets of the data.

Seven

A Matter of Conjunctions

Under the Feist ruling, then, the principal criteria for granting copyright protection to compilations are originality and creativity in the selection and arrangement of the component data. Does it have to be in both selection and arrangement? Or will demonstrable creativity in either selection or arrangement suffice?

The statute is clear on this point. In section 101, it defines a compilation as "... a work formed by the collection and assembling of ... data that are selected, coordinated or arranged" (emphasis added).

But Justice O'Connor was remarkably inconsistent in her use of the conjunctions. Of the nineteen passages in which "selection ... arrangement" appear in conjunction (not counting direct quotations from the statute or other texts), "and" appears in eleven and "or" in eight. Was this just carelessness? I rather think so; and I do not believe that the resulting confusion, if any, 25 should obscure the intended meaning. Although "and" has a numerical majority, "or" — the inclusive "or" that means "A or B or both" — was clearly intended. Throughout the opinion, selection and arrangement are treated as discrete operations; and this is confirmed, unmistakably, in the concluding paragraphs.

Epilogue

CNN v. VMS

The excitement stirred by the Supreme Court's ruling in the Feist case abated rather quickly. Relatively little has been published about the case in either the law journals or the trade publications of the information industry (although publication delays may be more to blame than paucity of material). There has been only one major case, so far as I am aware, that makes extensive and significant use of the Feist decision, and that is Cable News Network (CNN) v. Video Monitoring Services of America, Inc. (VMS).

In that case, CNN had sued to enjoin VMS from taping CNN's news broadcasts and selling the copies; the District Court had granted a preliminary injunction; and VMS had appealed. On September 4, 1991, a three-judge panel of the Eleventh Circuit Court of Appeals (Judges Fay, Birch, and Hoffman) reversed the District Court on several grounds; the one germane here is that

a typical television newscast may be copyrightable in its entirety as a compilation only. The various news stories, prerecorded segments, interviews, and weather reports presented in newscasts clearly constitute preexisting, collected and assembled materials that are factual in nature. It is the selection, coordination, and arrangement of these materials that may make the newscast as a whole an original work of collective authorship copyrightable only as a compilation.²⁶

The authority for this opinion is, of course, the Feist decision; and in the pertinent footnote the panel holds that "After Feist it cannot be assumed that every newscast would qualify for even compilation copyright status. Indeed, Feist places such a conclusion in serious doubt."

Lastly, it may be worth noting that in *CNN* as well as *Feist* the courts seem to favor a relaxation of restrictions on the users of intellectual property, and are not so apt as courts were in the major copyright cases of the 1980s to side with the claimants of proprietary rights. But it may be too soon to detect a swing of the pendulum.

Notes

- 1. United States Reports, No. 89-1909, March 27, 1991.
- Public Law 94-553 (Title 17, U.S. Code).
- 3. Anne W. Branscomb, Nurturing Creativity in a Competitive Global Economy: Intellectual Property and New Technologies (Cambridge, Mass.: Harvard University Program on Information Resources Policy, 1988 [P-88-4]), pp. 7-12.
- 4. "In the wake of the Feist case there will probably be a minor explosion of 'pirate' databases and directories in America." Michael Schwarz, "Copyright in Compilations of Facts: Feist Publications, Inc. v. Rural Telephone Service, Inc.," European Intellectual Property Review (May 1991), p. 182.
- 5. Steven J. Metalitz, general counsel of the Information Industry Association, voiced this view right after the Feist decision was announced (*The New York Times*, March 28, 1991, D-7). It was not an unexpected reaction; cf. the OTA report (infra, at note 7), p. 90.
- 6. The New York Times, Oct. 28, 1991, A-17, col. 1.
- 7. Office of Technology Assessment of the U.S. Congress, Intellectual Property Rights in an Age of Electronics and Information (elsewhere OTA), April 1986, p. 295.
- 8. Of course, compilations may be other than "written" works; i.e., they need not consist of recorded words and sentences. Compilations may consist of numeric data, of graphics, or of audio recordings, for example. This paper is confined to written compilations to avoid unfruitful complexities.
- 9. Anthologies are a special case. They are not compilations as defined in the copyright statute; although "formed by the collection and assembling of preexisting materials," the "resulting work" does not constitute "an original work of authorship."
- 10. Sec. 102 (a), (b).
- 11. Note 1, supra, at p. 6.
- 12. This could then be combined with a poll of voters about the main election issues. An interesting question: if the poll, which presumably is copyrighted, is concatenated with a factual and therefore unprotected compilation, does the resulting combined work become protected? In view of the ease with which databases can now be downloaded, modified, and merged with one another, this may well lead to a sharp controversy. Cf. OTA, pp. 75-77.
- 13. Note 1, supra, at p. 5.
- 14. Ibid. at pp. 21-22.

- 15. For a detailed discussion of transaction-generated information generally, see Thomas E. McManus, *Telephone Transaction-Generated Information: Rights and Restrictions* (Cambridge, Mass.: Harvard University Program on Information Resources Policy, 1990 [P-90-5]).
- 16. The credit lines usually given to polls reported in the newspapers (Gallup, Roper, etc.) indicate that they are usually protected by copyright, and presumably the protection applies to the questions, individually and in the aggregate, and to the summary of the responses. The individual responses are normally not published, thus protected as trade secrets or as matters of privacy. The aggregate results can be published freely as news.
- 17. The entire OTA report (note 7, supra) was devoted to this subject, as were two subsequent meetings of the Network Advisory Committee of the Library of Congress. The Committee proceedings were published as Network Planning Papers #16 (1987) and #17 (1989). Of particular relevance to this paper is Robert L. Oakley's background report included in #17. Many of the arguments he reviews were anticipated (and rebutted) in an article by Jeffrey Squires, then a staff attorney for CONTU, entitled "Copyright and Compilations in the Computer Era: Old Wine in New Bottles," in the Bulletin of the Copyright Society of the U.S.A. (October 1976). It is interesting in this connection to note one of CONTU's recommendations (in its Final Report, July 31, 1978 [Washington, Library of Congress, 1979], p. 1): "Works created by the use of computers should be afforded copyright protection if they are original works of authorship within the Act of 1976."
- 18. "Copyright in Compilations of Facts (or Why the 'White Pages' Are Not Copyrightable)," Communications and the Law (December 1990), pp. 37-68. Patry is a policy planning advisor to the Register of Copyright.
- 19. Cf. Bella H. Caledonia, "'Feist v. Rural Telephone': Is the sky falling for directory publishers?" New York Law Journal (April 12, 1991), p. 1. Her statement that "many of these databases will have no copyrightable 'selection' either, as most purport to contain all available information on a particular topic" is, I think, too sweeping.
- 20. At least, this is true wherever reading is done from left to right.
- 21. Here is a sample:

877-2589
593-1429
861-2552
787-7978
517-5234
255-6274
979-2798
989-0641
628-9135
862-2301
628-1259
533-4956
988-2618
517-8424
777-3874
744-2746
353-8554
929-8585
227-1173
675-7380
243-7195
535-6115
876-1132
861-9647
260-7817

- 22. Cf. Branscomb (note 3, supra) at pp. 27-31.
- 23. Note 17, supra, at p. 16.
- 24. Note 19, supra.
- 25. Cf. Schwarz (note 4, supra) at p. 181.
- 26. 940 f.2d (11th Circuit), at 1486 and footnote 23.