

FROM PENS TO PIXELS: TEXT-MEDIA ISSUES IN PROMULGATING, ARCHIVING, AND USING JUDICIAL OPINIONS

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I. INTRODUCTION

The American judicial system, like the British system on which it is based, relies on precedent and therefore requires the availability of prior judicial opinions in order to function.¹ Whether judicial opinions are the law, or merely evidence of the law, or some hybrid of the two,² text media are inextricably entwined with adjudicating the law in America.³

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1. See e.g. 1 William Blackstone, *Commentaries* (1765) (facsimile reprint, U. Chi. Press 1979):

The decisions therefore of courts are held in the highest regard, and are not only preserved as authentic records in the treasuries of the several courts, but are handed out to public view in the numerous volumes of reports which furnish the lawyer's library. These reports are histories of the several cases, with a short summary of the proceedings, which are preserved at large in the record; the arguments on both sides; and the reasons the court gave for their judgment.

Id. at 71; also available at <<http://www.yale.edu/lawweb/avalon/blackstone/introa.htm#3>> (accessible by using a web browser's search function to locate the words "authentic records" at this URL) (accessed Dec. 12, 2002; copy on file with Journal of Appellate Practice and Process)

2. Cf. *Hart v. Massanari*, 266 F.3d 1155, 1163–64, 1170 (9th Cir. 2002).

3. Terms such as "judicial decision" and "judicial opinion" do not always lend themselves to definitional exactitude. Differentiation can be and is made among judicial "decisions," "opinions," "findings," "judgments," "decrees" and/or related terms. See e.g. *Thomas v. McElroy*, 420 S.W.2d 530 (Ark. 1967); *Alleghany Corp. v. Aldebaran Corp.*, 196 A. 418 (Md. 1938); cf. *Rudenko v. Costello*, 286 F.3d 51 (2d Cir. 2002) (chastising certain federal judges for writing decision with findings of fact and conclusions of law inadequate to support a meaningful appeal). This article will give broadly inclusive

For the purposes of this article, the term “text-media technology” (or “text-medium technology” in the singular) broadly encompasses any means by which any textual verbiage information is encoded, stored, accessed, communicated, retrieved, and/or manifested, including the carving with a chisel of the Commandments upon stone tablets by or at the behest of the Almighty, the hand-scribing with quill pens of the words of the Law upon scrolls of parchment skins, ink-on-paper printing, electrical impulse encoding on a magnetic disk, the editorial revision of the same using a word-processing computer program, the subsequent transmission of the same through fiber-optic cables, or any other encoding, manipulation, or preservation of words using means between or beyond the aforementioned extremes.

The changes in the state of the text-media technological arts have brought several text-media issues to the fore in the availability of judicial opinions in the official reporters and elsewhere.⁴

By way of selected examples, this article will address and illustrate some of the text-media technology issues that pertain to judicial opinions, officially reported and otherwise.⁵ The

ambit to terms such as “judicial decision” and “judicial opinion,” and largely ignore the technical distinctions among the various genres of judicial output.

4. This article takes no position regarding whether or to what extent judicial opinions that are not officially reported ought be citable as legal precedent. Judicial opinions that have not been selected for inclusion in the official court reporters are sometimes called “unpublished opinions,” a dreadful misnomer, for they indeed are published. It is noted, for example, that any legal action by LEXIS against infringers of its California Appellate Unpublished Opinions database (*e.g.* 2002 Cal. App. Unpub. LEXIS) would place it in the somewhat embarrassing position of having to assert that the so-called “unpublished” opinions of the California Courts of Appeal included in its database are in fact published.

5. In light of the very subject of this article, some of the references herein compel citation to a particular source that may be a parallel to the generally preferred primary citation. Similarly, some references warrant more bibliographic information or particulars than nominally prescribed by the well-known conventions of the various systems of legal citation.

It is not the purpose of this article to take sides in the ongoing controversy regarding the adequacy or propriety of the *Bluebook* and any of its competitors. The very fact that such debate exists and persists is itself an indicium that no woodenly applied approach to writing legal citations can best advance the practical and scholarly value of all legal literature in all instances. *See e.g.* Carol Sanger, *Editing*, 82 *Geo. L.J.* 513 (1993). Issues surrounding the text-media aspects of legal materials will certainly continue to pose challenges to any system of citation, whether *Bluebook*, *ALWD*, or otherwise. *See e.g.* Coleen M. Barger, *The Uncertain Status of Citation Reform: An Update for the Undecided*,

particular classification scheme of such issues in this article is not intended to be inviolate; some issues may fit under more than one heading, and some issues may, in a given instance, functionally interplay with one another in ways not covered in this article. The reader's indulgence is beseeched accordingly.

Following this Introductory section, Part II of this article will address issues relating to preservation of textual data and non-textual data. Discussion of accessibility issues will follow in Part III, including cost factors, finding aids, and the impact of textual characters. Part IV of the article will then turn to the issues of timeliness of a judicial opinion's availability. Issues impacting reliability, including textual accuracy, type fonts, textual stability and indicia of provenance, will then be covered in Part V, followed by a short discussion in Part VI of the various sorts of outside information to be found in some bound reporters. This article will conclude that text-media issues are relevant, and must be comprehended and heeded, for the legal profession uses judicial opinions as precedential authority.

II. PRESERVATION OF JUDICIAL OPINIONS

A judicial opinion does not exist in a vacuum. The precedent that forms the very core of our legal system connects every judicial opinion to others that precede or follow it. Accordingly, the opinion must be preserved; the judge's scribbled perfunctory notes alone would not accomplish preservation,

[f]or the arguments of the judges, . . . would not always be intelligible; and they would become known to but few persons, and being written on loose papers, [would be] exposed to be mislaid, and soon sink into total oblivion.⁶

1 J. App. Prac. & Process 59 (1999); Bobbi Cross & Annemarie Lorenzen, *Facing Competition, Bluebook Takes Note of Electronic Citing*, Legal Intelligencer 7 (Sept. 10, 2001); Bruce M. Kennedy, *Design Principles for Universal Legal Citations*, 30 U. Tol. L. Rev. 531 (1999); Peter B. Maggs, *The Impact of the Internet on Legal Bibliography*, 46 Am. J. Comp. L. 665 (1998); see also Association of Legal Writing Directors & Darby Dickerson, *ALWD Citation Manual: A Professional System of Citation*, pt. 1, § D, 9-12, "How Your Word Processor May Affect Citations" (Aspen Law & Bus. 2000).

6. Ephraim Kirby, *Preface in Reports of Cases adjudged in the Superior Court of the State of Connecticut from the year 1785 to May 1788* at iv (Banks Law Publ. Co. 1899).

Indeed, during the formative era,⁷ many individual judges' bench notes from their decisions often left much to be desired as comprehensible and usable materials for other legal practitioners and researchers.⁸

If the only use of a judicial opinion were by the individual judge who issued it, then the opinion need only be committed to the judge's memory after it had been imposed upon the parties to the controversy. If such were the case, then the judge who issued the opinion would, at most, need only to write down a few mind-jogging notes in order to remember the opinion. But in a system such as ours, a vital first step is to manifest the opinion into some sort of textual format.⁹

Problems have arisen with judicial opinions that have not been set forth in writing or other textual manifestation. Where, for example, an oral ruling is made by one judge in a case, and the litigation then goes before a second judge on a procedural issue, the second judge may well misapprehend the unwritten decision of

7. The years from the American Revolution until the Civil War have been viewed by legal scholars as the formative era of American law. *E.g.* Roscoe Pound, *The Formative Era of American Law* (Little Brown & Co. 1938); Bernard Schwartz, *The Law in America 22-87* (McGraw-Hill 1974); *see also* Francis R. Aumann, *The Changing American Legal System: Some Selected Phases*, Contents at p. v. (Ohio St. U. 1940); Anton-Hermann Chroust, *The Rise of the Legal Profession in America*, vol. 1, at viii (U. Okla. Press 1965) (referring to "formative era" of American law.).

8. *See e.g.* Thomas Emerson, *Advertisement* in 1 Tenn. [no page number] (1813) (acknowledging as editor that the cases briefed from the bench by Judge Overton "contained in this volume were drawn up amidst the pressure of the business of the courts and other avocations; that the language in which the opinions of the court . . . are clothed, is not the best of which the respective subjects were susceptible . . . It is only the substance of such parts of the arguments as related to legal points, which he has attempted."); William Baskerville Hamilton, *Anglo-American Law on the Frontier: Thomas Rodney and His Territorial Cases* 159 (Duke U. Press 1953) (describing his editing of Judge Thomas Rodney's notes: "Rodney's method was varied and haphazard. Much of the time he scribbled furiously in court into bound notebooks, producing a manuscript abounding in abbreviations and frequently quite difficult to read. As a result, I spent an inordinate amount of time transcribing some of the passages."); *Preface* in *Decisions of the Superior and Supreme Courts of New Hampshire from 1802 to 1809, and from 1813 to 1816* at vi (Little, Brown & Co. 1879) ("The manuscripts were intended for [Chief Justice Jeremiah Smith's] own use, not for publication.").

9. There often is a time lag between the oral delivery of the decision from the bench and the follow-up written opinion. *See e.g. SecuraComm Consulting, Inc. v. Securacom, Inc.*, 224 F.3d 273, 277 (3d Cir. 2000) ("On March 22, 1999, after hearing argument on the recusal motion, Judge Debevoise denied the motion orally. On April 12, 1999, a written opinion to that effect was filed.").

the first.¹⁰ And if a judicial opinion needs to be reduced to text medium in the context of the same litigation, then it surely needs to be put in textual form if it is to apply to other cases.

A. *Preservation of Textual Data*

Even where a judicial opinion is set forth in intelligible text on paper (or other medium) and accessible to the public in the courthouse records, there are obvious preservation issues where but a single copy exists. Wartime activity, courthouse fires, riots, insurrections and similar calamities have been known to permanently obliterate judicial opinions where no specimen other than the original one in the court files is extant.¹¹ And even multiple copies can deteriorate over time when subjected to the elements.¹²

10. See e.g. *Alaska ex. rel. Bowman v. Alaska Airlines, Inc.*, 108 F. Supp. 274, 276 (D. Alaska 1952) ("Were it not for the fact that my ruling was made orally or at least without a written opinion and that, therefore, Judge Dimond is unfamiliar with the reasoning underlying it, I would not now advert to that defense.") The opinion by Judge Dimond referenced by Judge Folta is reported as *Bowman v. Alaska Airlines, Inc.*, 14 F.R.D. 70 (D. Alaska 1952).

11. See e.g. *Alviso v. U.S.*, 73 U.S. 457, 457 (1867) (noting that records of United States District Court for Eastern District of California were destroyed by fire in July 1866); *Stebbins v. Duncan*, 108 U.S. 32, 45 (1882) (noting that court records were destroyed in Chicago fire of 1871); *Curyea v. Berry*, 84 Ill. 600, 601 (1877) (noting that courthouse and records of judicial proceedings in Moultrie County, Illinois, were destroyed by fire in 1864); 3 *Legal and Judicial History of New York* 96-97 (Alden Chester, ed., William S. Hein & Co. 1983) ("Few records of the [Queens] county court proceedings have escaped the devastation of time. . . . During the revolution the British troops tore down the old court house and carried off its materials to construct barracks and huts for the soldiers. . . ."); *Select Cases of the Mayor's Court of New York City, 1674-1784* at 60 (Richard B. Morris, ed., Am. Historical Assn. 1935) (indicating that gaps in records of Mayor's Court of New York City coincide with Leisler's Rebellion (1689-1691), the Stamp Act protests (1765-1766), and the Revolutionary War); see also *Hilts v. Colvin*, 14 Johns. 182, 184 (N.Y. Sup. Ct. 1817) (noting that court records in Herkimer County, New York, were destroyed by fire in April 1804); *McClaskey v. Barr*, 47 F. 154, 170 (C.C.S.D. Ohio, 1891) (noting that records in Cincinnati courthouse were destroyed by riots and fire in 1884). In modern times, courthouses remain susceptible to destructive calamities. See e.g. Daniel Wise, *Court System Feels Disaster's Impact*, N.Y.L.J. 1 (Sept. 13, 2001).

12. See e.g. AALL Special Committee on Preservation Needs of Law Libraries, *Preservation Treatment Options for Law Libraries*, 84 L. Lib. J. 259 (1992). In view of the losses that are entailed by the deterioration of books and other printed materials, Congress has made it national policy that all federal records, books, and publications of enduring value (obviously including the judicial opinion reporters) be printed on acid-free paper. See Natl. Policy on Use of Acid-Free Permanent Papers, P.L. 101-423 (Oct. 12, 1990)

Published judicial opinions, with their relatively wide circulation, have some prospects for surviving such devastations. The experience from the fire at the Galveston courthouse during the Civil War is quite instructive in that regard. Those opinions that were not officially reported but that were published in the *Law Journal* have survived, but those which were not so published have become extinct.¹³ In modern times, the publication of a judicial opinion, officially or otherwise, sets into motion certain bureaucratic and commercial processes that necessarily entail the manifestation of that opinion in several textual versions, thus better ensuring the survival of the opinion's text in one form or another.¹⁴

When the only commercially practicable text medium was some form of ink and paper, publication and propagation of a judicial opinion ensured that the opinion text would somehow be preserved for posterity. But amidst all of the predictions of and progress towards the ideal of a totally paperless virtual law library,¹⁵ preservation once again becomes an issue in the twenty-first century, addressing matters such as back-ups for the "master copy" that resides in the central location in order to ensure its preservation in the event of a service interruption, computer crash or inadvertent text deletion.¹⁶

B. Non-textual Data in Judicial Opinions

Though this article deals with text media, it must be

(available in the History; Ancillary Laws and Directives section following 44 U.S.C. §509 in the LEXIS database).

13. The Galveston courthouse fire apparently affected litigation that eventually reached the United States Supreme Court. See *Cowdrey v. Galveston, Houston & Henderson R.R. Co.*, 93 U.S. 352, 354 (1876).

14. See section V(A) below for a discussion of textual accuracy.

15. See e.g. Martha Middleton, *The Virtual Library Looms*, Natl. L. J. 1 (July 12, 1993); Ritchenya Shepherd, *Farewell to Books of Yore*, Natl. L. J. C1 (July 17, 2000), also published as *Law Firms Thrive on Virtual Law Libraries in Cyberspace*, N.Y.L.J. 5 (July 11, 2000); see also Mark Ballard, *Court Hears First Plea For Paperless System*, Tex. Law. 8 (Nov. 19, 1990).

16. In one Japanese criminal prosecution, the proceeding was adjourned when the final version of the decision was inadvertently deleted from the word processor in the judge's chambers before a printed copy could be produced. See *Case Delayed After Judge Hits Delete Button on Ruling*, Mainichi Daily News (May 29, 2002), available at <<http://www.12mainichi.co.jp/news/mdn/search-news/865783/May20292c202002-0-15.html>> (accessed Dec. 3, 2002; copy on file with Journal of Appellate Practice and Process).

understood that the digitalization of data has blurred (and for many applications, obliterated entirely) the demarcation between text and other types of data.¹⁷ Moreover, data other than words and letters are sometimes desirable or necessary in order to adequately express an idea. Accordingly, a judicial opinion may well include critical data besides and beyond its textual letters, words and paragraphs.

Over the years, several published judicial opinions have included graphic illustrations such as maps, diagrams or photographs. The various judicial opinions involving patents are, of course, replete with illustration.¹⁸ Even Justice Cardozo, ever noted for his ability to elucidate a complex case through his skilled command of the English language, had occasion to deliver a judicial opinion that employed and referenced an illustration.¹⁹

Many of the earlier illustrated published opinions dealt with real property, and featured maps or plats of the land in question.²⁰ Real property issues continue to be conducive to illustration with maps and plats,²¹ but are hardly the only subjects of graphic illustration in judicial opinions. One early twentieth century opinion involving an election contest, for example, features illustrations of various types of crosses.²² Other sorts of illustrations that have been included in judicial opinions include voting district maps,²³ product labels in trademark litigation,²⁴ allegedly defective products in product

17. See e.g. Nicholas Negroponte, *Being Digital* (Alfred A. Knopf 1995).

18. This article does not even attempt to cover the area of patent practice. Suffice it to say that “[c]laim language does not exist in a vacuum; it must be understood by reference to the documents annexed to the patent grant, including the specification, of which the claims are a part, and any drawings.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 990 (Fed. Cir. 1995) (Mayer, J., concurring) (citing *Autogiro Co. of Am. v. U.S.*, 384 F.2d 391, 397 (Ct. Cl. 1967)) (emphasis supplied).

19. See *Loomis v. N.Y. Cent. & Hudson River R.R. Co.*, 108 N.E. 837, 838 (N.Y. 1915).

20. E.g. *Alexander v. Caldwell*, 55 Ala. 517, 522 (1876).

21. E.g. *Frost v. Ayojiak*, 957 P.2d 1353, 1360 (Alaska 1998).

22. *Hunt v. Campbell*, 169 P. 596, 610 (Ariz. 1917).

23. E.g. *Abrams v. Johnson*, 521 U.S. 74 (1997) (foldout inserts following 102 and 120).

24. *Barrett Chemical Co. v. Stern*, 56 App. Div. 143, 144-45, (1st Dept. 1900). The insecticide labels at issue are illustrated in the official *Appellate Division Reports* but not in the unofficial *New York Supplement* parallel, which appears at 67 N.Y.S. 595.

liability cases,²⁵ accident scenes,²⁶ equipment in industrial and construction accident cases,²⁷ genealogical charts in questions of trust and estate succession,²⁸ facsimiles of documents from commercial transactions,²⁹ documents created in connection with bank accounts,³⁰ copies of advertisements whose legality was at issue,³¹ scenes of arrest where constitutionality of evidence is at issue,³² copies of cattle brands where livestock ownership was at issue,³³ and a piece of printer's type.³⁴

Several military court martial opinions have lent themselves to illustrations, including that from the proceedings against lieutenant William Calley, the most notorious military justice defendant from the Vietnam era (if not from all time). It is illustrated with several maps, diagrams and photographs of the site of the infamous My Lai massacre.³⁵

Given the infamous complexity and confusion inherent in the Internal Revenue Code,³⁶ it is almost inescapable that the adjudicators of taxation cases have had occasion to elucidate their opinions with illustrations. Visual aids in tax litigation

25. *E.g. Sturm, Ruger & Co., Inc. v. Day*, 594 P.2d 38, 41 (Alaska 1979).

26. *E.g. Coburn v. City of Tucson*, 691 P.2d 1078, 1081 (Ariz. 1984).

27. *E.g. Bachner v. Rich*, 554 P.2d 430, 448 (Alaska 1976) (photograph of scaffold involved in construction accident).

28. *E.g. Est. of Williams v. Commr.*, 62 T.C. 400, 404 (1974).

29. *E.g. North v. Merchants & Miners' Transp. Co.*, 15 N.E. 779, 779 (Mass. 1888) (bill of lading).

30. *E.g. Jones v. Robinson*, 764 S.W.2d 610, 612 (Ark. 1989) (Glaze, J., dissenting).

31. *E.g. Messerli v. State*, 626 P.2d 81, 89 (Alaska 1980) (considering whether campaign advertisement complied with state election law).

32. *E.g. Ricks v. State*, 771 P.2d 1364, 1373 (Alaska 1989); *see also id.* at 1371 (Singleton, J., dissenting) (referring to attached copy of sketch used by defendant at trial).

33. *E.g. Thomas v. Leftault*, 288 P.2d 779, 781 (Ariz. 1955).

34. *E.g. Cohn v. Royal Globe Ins. Co.*, 414 N.Y.S.2d 19, 21 (App. Div., 2d Dept. 1979).

35. *See U.S. v. Calley*, 46 C.M.R. 1131, 1198-1200 (C.M.R. 1973), *aff'd*. 22 U.S.C.M.A. 534, 48 C.M.R. 19 (1973).

36. *See e.g. Learned Hand, Thomas Walter Swan*, 57 Yale Law Journal 167, 169 (1947):

[T]he words of such an act as the Income Tax, for example, merely dance before my eyes in a meaningless procession: cross-reference to cross-reference, exception upon exception—couched in abstract terms that offer no handle to seize hold of—leave in my mind only a confused sense of some vitally important, but successfully concealed purport, which it is my duty to extract, but which is within my power, if at all, only after the most inordinate expenditure of time.

opinions have included diagrams of investment structures, money movements and transfers,³⁷ graphs of a taxpayer's stock investment activities,³⁸ copies of commercial transaction documents where the sale's location was relevant to its tax treatment,³⁹ illustrations of steel-mill crane structures whose status as either buildings or equipment was at issue for purposes of allowing depreciation and investment tax credit,⁴⁰ a flow chart of the steps used to process phosphate where the issue was allocating costs and depreciation between mining and non-mining activities,⁴¹ and a copy of an altered Form 1040 filed by a tax protester.⁴² To the financial and aesthetic delight of the fine arts world, a Tax Court opinion, holding that violin bows used by professional musicians could, under the then-existing tax law, qualify for accelerated cost recovery depreciation tax treatment, included an illustration of a violin bow in order to demonstrate the wear and tear it typically will incur in the hands of a professional violinist.⁴³ State taxation laws can be of equal or greater complexity, and accordingly, opinions involving the state tax laws have, on occasion, also included illustrations.⁴⁴

Despite courts' longstanding and widespread use of non-textual material in their opinions, there are in the LEXIS database currently no illustrations available from that service along with the textual verbiage of the opinions.⁴⁵ Indeed, some

37. *E.g. Able Co. v. Commr.*, T.C. Memo 1990-500, 60 T.C.M. (CCH) 813, 818 (1990).

38. *E.g. Paoli v. Commr.*, T.C. Memo. 1991-351, 62 T.C.M. (CCH) 275, 282-83 (1991).

39. *E.g. Kates Holding Co., Inc. v. Commr.*, 79 T.C. 700, 703-04 (1982).

40. *Lukens, Inc. v. Commr.*, T.C. Memo 1987-464, 54 T.C.M. (CCH) 517, 521.

41. *Monsanto Co. v. Commr.*, 86 T.C. 1232, 1235 (1986).

42. *Beard v. Commr.*, 82 T.C. 766, 788-89 (1984), *aff'd* 793 F.2d 139 (6th Cir. 1986).

43. *Simon v. Commr.*, 103 T.C. 247, 266 (1994), *aff'd* 68 F.3d 41 (2d Cir. 1995).

44. *See e.g. A. Richfield Co. v. State*, 705 P.2d 418, 422 n. 6 (Alaska 1985) (graph of estimated revenues, costs and profits contained in each barrel of Alaskan oil during the years 1978-1980); *Equitable Life Assurance Socy. v. Murphy*, 621 A.2d 1078, 1080 n. 2 (Pa. Commw. 1993) (diagram of transaction).

45. In the LEXIS database opinions to which courts have appended non-textual material generally indicate the pagination of the illustration in the printed reporters only by inserting the legend "See Illustration in Original." There is little doubt in the author's mind that competition among the purveyors of online judicial opinions, together with advances in the state of the art, will eventually make illustrations standard fare in the databases of LEXIS and its competitors. See notes 112 through 115, *infra*, and accompanying text for discussion regarding free-access illustrations available in competition with fee-based LEXIS opinions lacking illustrations.

of the graphic illustrations that are part and parcel of particular opinions are omitted in some official or unofficial publications. Two cases that stand in contradistinction to one another in that regard are the *Hine* case⁴⁶ and the *Barrett Chemical* case.⁴⁷ In *Hine* the illustration appears in the *New York Supplement*⁴⁸ but not in the official *Hun* reporter.⁴⁹ On the other hand, in *Barrett Chemical* the copies of the labels at issue are illustrated in the official Appellate Division Reports⁵⁰ but not in the unofficial *New York Supplement*.⁵¹ Quite curiously, the official Court Reporter in both *Hine* and *Barrett Chemical* was the same person, Marcus T. Hun.⁵²

The concept of including a graphic illustration in the judicial opinion suggests further technological advancement in the non-textual data that might be incorporated into a judicial opinion. The next logical step, the use of full color illustrations instead of black-on-white monochrome, has already begun to occur.

In 1993, when the Supreme Court ruled on the legality of North Carolina's Congressional election districts, it included, for the third time in seventeen years, a black-on-white monochrome illustration as a foldout insert in its official reports.⁵³ The parallel unofficial reports reduced the foldout map to fit on a single page in their publications of the opinion.⁵⁴ Having thus proven the feasibility of illustrating its opinions with foldout insert sheets,⁵⁵

46. *Hine v. N.Y. Elevated R. Co.*, 7 N.Y.S. 464, 466, 54 Hun (61 Sup. Ct. Dec of N.Y.) 425 (Sup. Ct., Gen. Term, 1st Dept. 1889).

47. 56 App. Div. 143, 67 N.Y.S. 595.

48. 7 N.Y.S. at 466.

49. 54 Hun (61 Sup. Ct. Dec of N.Y.) 425.

50. 56 App. Div. at 144-45.

51. 67 N.Y.S. 595.

52. Hun had occasion to serve in a dual capacity in some cases as both official court reporter and as counsel for a party, *see e.g. Durant v. Pierson*, 11 N.Y.S. 842; (Sup. Ct. 1890); *Forsyth v. McKinney*, 8 N.Y.S. 561 (Sup. Ct. 1890); *Van Antwerp v. Devol*, 3 N.Y.S. 462 (Sup. Ct., 3d Dept. 1888). In *Van Antwerp*, he was a plaintiff as well.

53. *Shaw v. Reno*, 509 U.S. 630, 658 (1993).

54. *See id.* at 113 S. Ct. at 2833, 125 L. Ed. 2d at 536A.

55. At one time the preparation and manufacture of a book with a foldout insert sheet was considered to be "an extremely expensive operation, and something no publisher is likely to do except for a very important table in a very important book." Chicago Manual of Style, § 12.55 at 421 (14th ed., U. Chi. Press 1993). Innovations in printing techniques and equipment have since simplified the processes required.

the Supreme Court shortly thereafter took the next step by illustrating another election-districts opinion with not one but four foldout insert maps, printed in color instead of black-on-white.⁵⁶ The parallel unofficial reports once again reproduced the official color illustrations in monochrome, reduced to fit on a regular page.⁵⁷

The Supreme Court has subsequently issued additional opinions with color foldout insert illustrations,⁵⁸ and in all likelihood will continue to do so. With the applicable technology being put to ever-widening use, the question of the parallel unofficial publications following suit with the color graphics is more likely an inquiry of when than of whether.

For the color maps that illustrated the aforementioned Supreme Court opinions,⁵⁹ variations in the specific color used would not have materially affected the opinion. It is entirely conceivable, however, that the particular color depicted in an illustration accompanying an opinion may well be relevant if not critical to a court's decision. There have, after all, been cases where a specific color was the subject of an intellectual property right.⁶⁰ As the available state of the graphic arts increases the economic and technological feasibility of color control, the courts may well see fit to depict a specific color in their opinions when the occasion so demands.

56. *Miller v. Johnson*, 515 U.S. 900 (1995) (containing fold-out insert leaves following pages 928 and 950).

57. *Id.*, 115 S. Ct. 2475, 2495-96, 2508-09, 132 L.Ed.2d 762, 788-89, 804-06.

58. *E.g. Bush v. Vera*, 517 U.S. 952 (1996); *Abrams v. Johnson*, 521 U.S. 74 (1997); *U.S. v. Louisiana*, 525 U.S. 1 (1998); *Hunt v. Cromartie*, 526 U.S. 541 (1991). The *Bush* case also had monochrome illustrations on regular pages. 517 U.S. at 987-89, 1042-44.

Ironically, in the same volume as the one containing the color-illustrated *Hunt* opinion, a monochrome black-on-white foldout insert illustrated another opinion that, in all likelihood, will be longer remembered by students of law, politics, and history. *See N.J. v. N.Y.*, 526 U.S. 589 (1999), (resolving territorial dispute between the states of New Jersey and New York over Ellis Island and ergo, the jurisdiction over taxable events occurring there relating to the tourist trade). Illustrations included in recent Supreme Court opinions can be viewed by using the search engine on the Court's website to locate the pdf version of the volume of the United States Reports in which a particular case appears. *See* <<http://www.supremecourtus.gov>> (accessed Dec. 4, 2002; copy on file with Journal of Appellate Practice and Process).

59. *See* nn. 56-58, *supra*, and accompanying text.

60. *See e.g. Qualitex Co. v. Jacobson Prod. Co., Inc.*, 514 U.S. 159 (1995); *see also Diamond Match Co. v. Saginaw Match Co.*, 142 F. 727 (6th Cir. 1906).

Carrying the concept a step further, one can easily imagine the non-textual data of the judicial opinion being embodied in not a static illustration, but an animated or motion picture video clip, complete with sound.⁶¹ An audio recording itself might conceivably be part of the judicial opinion,⁶² as, for example, in an opinion that deals with infringement of a copyrighted musical melody. In the *Baron* case,⁶³ a 1949 opinion involving copyright litigation regarding the popular song *Rum and Coca-Cola*, the following district court finding was repeated in the Second Circuit opinion:

The extraordinary great similarities—which approximate identity—between plaintiff’s copyrighted song “L’Annee Pensee” and defendants’ infringing song, “Rum and Coca Cola,” in melody, uninterrupted sequence of identical notes, rhythm, construction, harmony, identity of unusual dissonant chords, and other respects, are so great as to preclude the inference of coincidence, and they constitute sufficient internal evidence of copying, even in the absence of the direct extrinsic proof of copying.⁶⁴

Had the technology been available in the late 1940s to efficiently incorporate audio tracks into a published judicial opinion, it is quite conceivable that the district or circuit court (or both) in *Baron* would have used it to incorporate the sound bites relevant to the alleged infringement as audio

61. Audio-video recordings of oral arguments before the Florida Supreme Court, case brief documents, and opinions are already available on the Internet. See e.g. <<http://oldweb.law.fsu.edu/library/flsupct/sc00-113/sc00-113.html>> (collecting various documents relating to *Allen v. Butterworth*, 756 S.2d 52 (Fla. 2000): opinion, several petitions, responses, replies and briefs, and a professional video of the oral arguments) (accessed Oct. 2, 2002; copy on file with Journal of Appellate Practice and Process).

62. It is well to note that at least one court has held that audio recordings of a court proceeding are official court records that are open to public access. *Smith v. Richmond Newspapers, Inc.*, 540 S.E.2d 878 (Va. 2001).

63. *Baron v. Leo Feist, Inc.*, 173 F.2d 288 (2d Cir. 1949).

64. *Id.* at 290. The district court had also found that

[t]he accused song bears the kind of similarity to plaintiff’s song which, by standards set up by the Court of Appeals of this Circuit indicates internal evidence of copying even in the absence of proof of access. . . . The uninterrupted sequence of identical notes is too great to admit of any other inference but copying. The rhythm, construction and the harmony of both songs are little short of identical. To the lay ear substantial identity is the only inference.

Baron v. Leo Feist, Inc., 78 F. Supp. 686, 689 (S.D.N.Y. 1948) (internal citations omitted).

“illustrations” to accompany their opinions. Those who would so speculate can find encouragement in the fact that the district judge and the circuit judge in the *Baron* case each had prior occasion to include graphic illustrations in opinions from other unrelated matters involving patent infringement, thus demonstrating a willingness to resort to data other than text in order to clarify opinions resolving intellectual property controversies.⁶⁵

Even without prognosticating the future, it is apparent that copyright issues are obviously relevant to the use of proprietary non-textual data in judicial opinions. The *Royal Globe* opinion,⁶⁶ which interpreted the New York Vehicle and Traffic Law’s statutory requirements for type face size, featured a diagram of a piece of type that was copied from *Webster’s Third International Dictionary*,⁶⁷ apparently with the blessing of the dictionary’s publisher.⁶⁸ Intellectual property rights are a similar potential concern for audio, video, or other such items used by the judge to elucidate the opinion.

The use of non-textual data in judicial opinions can thus be traced back quite far, and in many cases has been critical to fully imparting the meaning of the opinion.⁶⁹ Information technologies now facilitate, as never before, the efficient and accurate incorporation and preservation of non-textual data into durable documents that can be efficiently and expeditiously made available to the bench, bar, and public at large. Non-textual data of ever-growing complexity appear in judicial opinions with increasing frequency, as demonstrated by the Supreme Court’s fold-out illustrations.⁷⁰ Notwithstanding the technologies available now at the dawn of the twenty-first century, at least

65. See *Am. Fabrics Co. v. Richmond Lace Works*, 24 F.2d 365, 368-69 (2d Cir. 1928) (Swan, J.); *Shoe Form Co. v. Irwin Corp.*, 68 F. Supp. 618 (S.D.N.Y. 1946) (Rifkind, J.).

66. *Cohn v. Royal Globe Ins. Co.*, 414 N.Y.S.2d 19 (App. Div., 2d Dept. 1979).

67. *Id.* at 21.

68. The relevant editor at Merriam-Webster, Inc., though ill-postured to expeditiously retrieve the two-decades old documents from deep in the company archive, was of the opinion that appropriate clearances were likely obtained from Merriam-Webster for the use of its illustration in the *Royal Globe* opinion. E-mail from Anne Golob, Electronic Licensing Manager and Permissions Editor, Merriam-Webster, Inc., to Kenneth H. Ryesky, *Permission Inquiry* (Nov. 10, 2000) (copy on file with author).

69. See e.g. *Autogiro*, 384 F.2d 391.

70. See nn. 53-58, *supra*, and accompanying text.

one respected authority has strongly discouraged the use of non-textual data in judicial opinions.⁷¹ There is little doubt that the ability and willingness of judges and opinion publishers to incorporate non-textual data in judicial opinions will continue to impact legal precedent and research.

III. TEXTUAL ACCESSIBILITY OF JUDICIAL OPINIONS

A. Textual Accessibility in General

Once the opinion is rendered by the judge or judges, accessibility issues immediately arise. The text medium plays a significant role in defining and resolving the accessibility issues.

Even the most astutely reasoned judicial opinion is useless if others cannot access it. Thus, an opinion written by Chief Justice Roger B. Taney in 1864, but apparently mislaid following his death in October of that year, remained inaccessible for over twenty years until a copy of reliable provenance found its way to the reporter.⁷²

Accessibility of all types of law books, including those containing judicial opinions, was often problematic in America during the colonial and formative eras, when American courts relied most heavily, if not exclusively, upon British legal material for precedents pending the development of a corpus of purely American decisions.⁷³ Well into the Nineteenth Century,

71. Joyce J. George, *Judicial Opinion Writing Handbook* pt. IV, 359-69, 375-77, 385 (4th ed., William S. Hein & Co., Inc. 2000).

72. *Gordon v. U.S.*, 117 U.S. 697 (1865) (Appendix I). The original *Gordon* case is simply abstracted with a paragraph in the United States Reports as having been dismissed for want of jurisdiction, see 69 U.S. (2 Wall.) 561 (1865); the *Lawyer's Edition* parallel gives, in addition to the arguments of counsel, a three-paragraph passage purporting to be the actual opinion (and not an abstract) of Chief Justice Chase, 17 L. Ed. 921, 922. The *Gordon* opinion was, by all accounts, "the last judicial paper from the pen of Mr. Chief Justice Taney," 117 U.S. 697-698. The *Gordon* case was subsequently argued before the Court, and then dismissed for want of jurisdiction, see 17 L. Ed. 921, 922. The issue of whether Taney's opinion in *Gordon* was an authoritative opinion of the Supreme Court was quickly mooted when Congress revised the statute to give the Supreme Court jurisdiction over judgments from the Court of Claims. Act of March 17, 1866, c. 19, 14 Stat. 9. A more detailed history of the *Gordon* case can be found in *U.S. v. Jones*, 119 U.S. 477, 477-78 (1886).

73. Pound, *supra* n. 7, at 8; Schwartz, *supra* n. 7, at 52-55; see also Hamilton, *supra* n. 8, at 136-37; *The Law Practice of Alexander Hamilton* vol. 1, 33 (Julius Goebel, Jr., ed.,

the availability of court decisions reports in America left much to be desired,⁷⁴ particularly in the frontier regions where transportation and communication factors significantly contributed to the exorbitant costs of those books, law or otherwise, which occasionally became available.⁷⁵ Even in the established and settled Eastern cities, the available judicial opinion reports from England were often tardy in their arrival.⁷⁶ The ramifications of the impediments to accessibility during these periods were not trivial; it was the very inaccessibility of printed legal materials of all kinds which induced the law in America to grow in a direction divergent from the law of England.⁷⁷

Before ink-and-paper became the standard format for text media, many legal documents (though not necessarily judicial opinions) were literally carved into stone. The Code of King Hammurabi, carved into a stone block nearly eight feet high,⁷⁸ was accessible by coming to view the stone upon the sides of which it was engraved. By the time of the colonial period in America, text-medium technology had significantly improved

Columbia U. Press 1964); John Samuel, *Address on the Opening of the Law Association of Philadelphia Law Library* (March 30, 1898), in *The Law Association of Philadelphia, 1802-1902* at 393, 397 (1906) (remarking that all but three of the reporters listed in the 1805 catalog of the Law Library Company of Philadelphia were English); *Preface*, 5 U.S. (1 Cranch) iii (1804) (noting that “[m]uch of that uncertainty of the law, which is so frequently, and perhaps so justly, the subject of complaint in this country, may be attributed to the want of American reports”). In those days, the appearance of a major new law text was an infrequent event and its occurrence, on at least one occasion, drew positive dictum from the bench in a judicial opinion. See *Dean v. Richmond*, 22 Mass. (5 Pick.) 461, 466 (1827) (Parker, C.J.) (prefacing point with “[i]n a recently published book, which I trust from the eminence of its author and the merits of the work will soon become of common reference in our courts . . .”).

74. See Pound, *supra* n. 7, at 9-10; Richard B. Morris, *Study and History of American Law* 44-45 (2d ed., Joseph M. Mitchell Co. 1959).

75. See Hamilton, *supra* n. 8, at 136-137, 159; James W. Paulsen, *A Short History of the Supreme Court of the Republic of Texas*, 65 Tex. L. Rev. 237, 270-74 (1986).

76. See e.g. *Law Practice of Alexander Hamilton*, *supra* n. 73, vol. 1, 6 (indicating that books of some significant British judicial decisions were not obtained by the New York Attorney General until nine years after publication), and accompanying text. See also n. 7, *supra*, and accompanying text.

77. See Pound, *supra* n. 7, at 7-10.

78. See *Introduction in Code of Hammurabi King of Babylon* xi (circa 2250 B.C.) (Robert Francis Harper, transl., 2d ed., U. Chi. Press 1904). A photograph of the stone, which is now at the Louvre Museum in Paris, is available at <http://www.louvre.fr/anglais/collec/ao/sb0008/ao_f.htm> (accessed Dec. 20, 2002; copy on file with Journal of Appellate Practice and Process).

from Hammurabi's day. Ink-on-paper medium had become the norm (though the method of putting the ink to the paper had yet to undergo various improvements), and compared to the diorite stone upon which Hammurabi's pronouncement was chiseled, such medium is easier to transport, easier to copy, and, in viewing the verso text, one need only turn the page instead of having to walk around to the other side of an enormous stone block.

Textual accessibility issues are relevant not only to the attorneys who advocate clients' causes in their legal briefs, but also to those who decide cases. Prior to the 1996 Atlanta Olympic Games, for example, the Olympic Division of the Court of Arbitration for Sport made provisions for accessing, via computer technology and otherwise, a wide variety of judicial opinions and other legal materials that would likely be needed for the types of disputes the tribunal would hear. Given the inherent potential for international diplomatic repercussions in Olympic Games disputes, the tribunal needed to step carefully but definitively in its deliberations, and could not have credibly conducted itself had there been no such access to the appropriate legal precedents and authorities.⁷⁹

Modern text-media technology has made the problems of a single specimen opinion all but a non-issue as far as textual accessibility is concerned.⁸⁰ At worst, a xerographic photocopy of the opinion can be produced when or shortly after it is issued by the judge, and even that simple and straightforward process has been made primitive by the profuse availability of computerized word-processing systems, which permit multiple copies of the opinion to be copied on magnetic or other disk medium in a matter of seconds at the time the opinion is promulgated.

A judicial opinion that is issued and compiled on paper or other text medium can play no role in our system of jurisprudence unless and until it can be accessed by those who would use it as precedent. Where access is restricted, those with

79. See Gabrielle Kaufmann-Kohler, *Arbitration and the Games or the First Experience of the Olympic Division of the Court of Arbitration For Sport* § 5, in 12 Mealey's Intl. Arb. Rep. (Feb. 1997).

80. There are, however, preservation issues involved. See nn. 6-12, *supra*, and accompanying text.

access privileges would, of course, have a decided advantage over adversaries lacking such privileges.⁸¹ Thus, if the sole media specimen of a judicial opinion is a single copy reposing in the court's file, then accessibility of the opinion is a function of the accessibility of the file.

Where the court file is in some remote room in the courthouse basement or otherwise, accessibility can be most inconvenient even to the judges and others who frequent the very courthouse building in which the files are located. It is known, for example, that the judges of the Supreme Court of the Republic of Texas had difficulty accessing prior opinions of their own court, and those judges who did cite prior opinions as authority were usually sitting on the bench when the prior opinion was issued.⁸² And if accessibility of court files is inconvenient for the honorable judges on the bench, it is all the more inconvenient for members of the public, whose access necessarily depends upon the acquiescence, if not the good humor, of court bureaucrats.⁸³

81. See e.g. *Reports & Cases Collected by the learned Sir John Popham* A2-[next page unnumbered] (Henry Twyford & John Place, eds., Thomas Roycroft, 1656):

Courteous Reader, . . . That by the handsome composure and connexion of them, it may (and that very probably) be conjectured, that the honourable Compiler at first intended them for the publique, but they (after his death) comming into private hands, they who became possessors of them, did rather intend their owne, and their friends private knowledge and advantage by them, then to let others communicate therein, for it hath not formerly been (neither yet is) a thing unusuall, for the great and learned Professors of the Law, to ingrosse into their owne hands, the best and most authentick REPORTS, for their better help, credit, and advantage in the course of their practise, which being unknown to other men, they cannot upon sudden occasions, be ready to make answer thereunto; and that might be the reason why they have not been as yet published.

Id.

82. See Paulsen, *supra* n. 75, at 274-75. Following its split from Mexico in 1836, Texas existed as an independent sovereign republic until its admission as a state in 1845. The Republic of Texas in general and its court system in particular were chronically beset by tight and unstable fiscal conditions. *Id.* at 265-70. The dearth of copies of judicial opinions was surely a consequence of the court's financial situation.

83. See e.g. George N. Statfeld, *Criticism Lodged Of Clerk's Procedure*, N.Y.L.J. 2 (Jan. 7, 1994) (letter to the editor explaining that upon his attempt to access two related and consecutively numbered case files of the Supreme Court of New York County, the writer was brusquely told by the bureaucrat behind the counter, "End of the line for the second file, counselor."). In all fairness to the unnamed court bureaucrat encountered by Mr. Statfeld, the "one file requisition per person" rule was promulgated to deal in an even-handed manner with conditions of an elevated caseload and an ongoing major renovation project which necessitated the long-term closure of physical space and access. See Norman Goodman, *N.Y. County Clerk Sets Forth Realities*, N.Y.L.J. 2 (Jan. 18, 1994) (letter written

Once accessibility issues in the opinion's home courthouse are resolved, the judicial opinions can be put to print or other text medium capable of producing multiple copies. But the printing press alone does not necessarily resolve all accessibility issues, for once the ink is put to the paper and the paper is folded, sewn and bound, the books of judicial opinions must then be made available to the user. In that regard, there are several libraries, academic or otherwise, that provide the public free access to their facilities,⁸⁴ including court libraries,⁸⁵ whose collections inherently include books of judicial opinions.⁸⁶ Some of those court libraries, in fact, regularly receive copies of slip opinions as they are rendered by the bench before being compiled in an official or unofficial reporter.⁸⁷

by chief clerk in response to Mr. Statfeld's letter). Notwithstanding the merits of the actions taken by the particular bureaucrat in the particular instance, Mr. Statfeld's experience demonstrates the access problems that might frustrate members of the public who attempt to obtain information that can only be found in court file folders. *See also Dept. of Justice v. Tax Analysts*, 492 U.S. 136, 139-40 (1989).

84. *See e.g.* 44 U.S.C. §§ 1901 *et seq.* (authorizing Federal Depository Library program); 44 U.S.C. §§ 4101 *et seq.* (mandating access to federal electronic information); N.Y. Print. & Pub. Docs. L. § 11 (establishing New York State Depository Library program); 42 Pa. C.S. § 3724 (2000) (providing that Pennsylvania county law libraries should be open to the public); *see also New York State Document Depository Manual* (Nancy Macomber, ed., N.Y. St. Library 1989), available at <<http://www.nysl.nysed.gov/edocs/education/depos.htm>> (accessed Oct. 22, 2002; copy on file with Journal of Appellate Practice and Process).

85. *See e.g.* N.Y. Judiciary Law § 813 (1993) (mandating public access to county law libraries). Prior to the enactment of § 813, the New York State Supreme Court libraries were operated according to varying schemes, and their access policies varied from county to county, some counties giving virtually unrestricted public access while others operated the libraries as private clubs for members only. *See Memorandum of Off. of Ct. Administration on Chapter 662, N.Y. Laws 1993*, reprinted in McKinney's 1993 Session Laws of New York 3203 (West 1993); *see also* Gary Spencer, *OCA to Take Charge of Law Libraries*, N.Y.L.J. 1 (Aug. 24, 1993). Spencer notes that it has reportedly been asserted that prior to the statewide open-access policy the Supreme Court Law Library in Brooklyn, which was effectively a private club in a public building, had in fact made its resources available to governmental attorneys. *Id.* Such reported assertions are most inconsistent with the author's personal experience during the late 1980s as an attorney in the employ of the Internal Revenue Service who attempted to access the Brooklyn library in the course of his official duties.

86. *See e.g.* 705 Ill. Comp. Stat. § 65/6 (2001) (providing for deposit of Illinois reports in certain Illinois state libraries); N.J. Stat. §§ 2A:12-6 (ah), (aj), (al) (2001) (providing for delivery of official New Jersey reports to various law libraries); N.Y. Jud. Law § 434(6) (2001) (providing for the delivery of official New York reports to public law libraries).

87. *See e.g.* Stephen L. Wasby, *Unpublished Decisions in the Federal Courts of Appeals: Making the Decision to Publish*, 3 J. App. Prac. & Process 325, 326 (2001); *see also* S.D. Cal. Civ. Loc. R. 83.8(a)(1)(f) (authorizing court libraries to expend funds for printing of slip opinion index).

With electronic text media, the accessibility issues take on a new focus. Where the judicial opinions are printed in books or other ink-on-paper media, access means physical access to the library or other repository where the physical document is kept.⁸⁸ The establishment of the fax machine as a standard appliance in American offices and homes during the closing decades of the twentieth century has provided additional avenues of access to judicial opinions.⁸⁹ Today's technology of online databases has gone a step further, making the physical location of judicial-opinion text largely irrelevant.

Electronic text media is not without its accessibility issues, though. As computer terminals become increasingly accessible in homes, offices and public libraries, so do the judicial opinions available on the Internet. But the physical infrastructure of the library must facilitate computer access.⁹⁰ And judicial opinions posted upon an access-fee type database such as LEXIS or Westlaw are inaccessible to those who do not have database-user privileges.

Aside from the gatekeeping issues, accessibility includes readability and similar utility issues. Computer text as pixels on a screen, without an intermediate transposition to an ink-on-paper medium, can tax the reader's vision and otherwise make cumbersome reading, especially when the text is not read sequentially.⁹¹

88. Physical access to libraries, and the time frames therefor, have raised important Constitutional issues in the context of prison inmates' litigation. See *Williams v. Leeke*, 584 F.2d 1336, 1340 (4th Cir. 1978), cert. denied 442 U.S. 911 (1979) ("We believe that meaningful legal research on most legal problems cannot be done in forty-five minute intervals.").

89. See e.g. *Wilkens v. Johnson*, 238 F.3d 328, 329 n. 3 (5th Cir. 2001); *Gilliam v. Foster*, 75 F.3d 881, 917 n.3 (4th Cir. 1996) (Luttig, J., dissenting); *Grismore v. State*, 841 S.W.2d 111, 113 (Tex. App. 1992). Occasionally, judges have specifically provided that their opinions be transmitted via fax. E.g. *Malone v. Calderon*, 167 F.3d 1221, 1222 (9th Cir. 1999); *In re Joint E. & S. Dist. Asbestos Litig.*, 1992 U.S. Dist. LEXIS 18723 at *11 (J.P.M.L., E. & S.D.N.Y. 1992).

90. See e.g. *Law School Library Enters 21st Century*, Temple Esq. 1 (Spring 2001) (discussing new computer-accessibility initiatives at the law library.).

91. Thomas K. Landauer, *The Trouble with Computers* 247-51 (MIT Press 1995); see also Thomas Adcock, *Law Library Draws Firms to Lincoln Building* N.Y.L.J. 1, 6 (June 4, 2001) (including comments from lawyers with offices in the Lincoln Building who use the law library available to them there as a privilege of tenancy, and quoting practitioner Jeffrey S. Abraham: "It's easier to read a book than a computer screen. With a computer, you have to print out first. It's just easier on the eyes that way.").

There are artifacts in the legal literature that indicate that accessibility of opinions (including unreported ones) does indeed impact their use as precedent by the judiciary. In *Atkins v. City of New York*,⁹² the federal district court found one other instance, upon which it relied, among the “surprisingly sparse case law dealing with” the question of whether it had the power to issue a writ of habeas corpus to produce a non-party witness incarcerated outside of the court’s geographical limits.⁹³ In the *Pizzolorusso* case,⁹⁴ a New York court’s independent Westlaw research revealed an unreported case in which the federal court in the Eastern District of Pennsylvania applied New York law on point.⁹⁵ The unreported opinion, while not necessarily an indispensable component of the *Pizzolorusso* rationale, certainly provided a solid leg upon which to stand. But for its ready accessibility through online databases such as LEXIS or Westlaw, it is doubtful that the unreported opinion from a federal district outside of New York would have been encountered by the *Pizzolorusso* court.⁹⁶

B. Cost Factors

As with all other worldly matters, any venture to make judicial opinions available to the bench, bar and public has its economic considerations. Every mode of accession to a judicial opinion has costs that must be borne by some party somewhere at some time, and the particular piggy bank from which the dime will be extracted to pay those costs is often determined by the text medium involved. As a simple example, printing out an online opinion at a law office terminal instead of using a bound volume book shifts the cost of paper and ink from the publisher

92. 856 F. Supp. 755 (E.D.N.Y. 1994).

93. *Id.* at 758.

94. *Pizzolorusso v. The Tenth Ave. Corp.*, N.Y.L.J. 22 (Mar. 19, 2002) (NYC Civ. Ct., Queens Co., 2002).

95. *Id.* The federal case cited in *Pizzolorusso*, *Windt v. Shepards/McGraw-Hill Inc.*, 1997 WL 152795 and 1997 WL 698182 (E.D. Pa. 1997), is also available on LEXIS. See 1997 U.S. Dist. LEXIS 17501 and 17965.

96. The Civil Court of the City of New York, which decided *Pizzolorusso*, though one of the world’s busiest tribunals, is among the lowest-ranked courts in the New York state court system. See N.Y. Const. art. VI, § 15; see also David D. Siegel, *New York Practice* 20 (3d ed. West 1999).

to the user, but can spare the user the expense of gasoline that would, quite literally, be burned if the user were to drive his or her automobile to the law library to access the printed book. The costs must be weighed against the benefits, and the character of the costs must be taken into account. And the practitioners and others who seek to access the opinions must similarly pay heed to the cost of such access, an issue that grows increasingly complex as the Internet offers an expanding menu of alternatives, fee-based and otherwise, to the ink-on-paper reporters.⁹⁷

During the colonial and formative eras, for example, the costs of transporting the printed reporter books once they were printed and bound was a key obstacle to the availability of British opinions in America, and of most opinions to judges and lawyers in the remote frontier areas.⁹⁸

Even when printing facilities are readily available, the printing process has fixed and variable costs that must be taken into account. The preparatory costs of printing books have long been a factor in the publication of judicial opinion reporter books. The costs necessarily incurred by the purveyor of the judicial opinions must be passed on to the user if the purveyor's enterprise is to remain viable. These costs cover much more than the text medium and labor involved, for there are other fixed and variable expenditures inherent in producing the judicial opinions in their various text-media forms.⁹⁹

97. See e.g. Carolyn Elefant, *Legal Research: Saved by the Web*, *Legal Times* 42 (Sept. 25, 2000).

98. See e.g. *Law Practice of Alexander Hamilton*, *supra* n. 73, at 136-37, 159; Paulsen, *supra* n. 75, at 270-74; Pound, *supra* n. 7, at 9-10; Morris, *supra* n. 74, at 44-45.

99. It is hardly the purpose of this article to analyze, or even to exhaustively list, the types of expenses inherent in the production of judicial opinion texts. Suffice it to say that the complexities of the state and federal tax laws are frequently relevant to the process. Compare N.Y. St. Dept. of Taxn. & Fin., Tech. Serv. Bureau, Advisory Op. TSB-A-82(15)S (May 3, 1982), available at <http://www.tax.state.ny.us/pdf/Advisory_Opinions/Sales/A82_15s.pdf> (advising Lawyers Co-op. that its purchases of items such as statutes, legislative materials, court reports, administrative reports and the like, which it uses in, *inter alia*, reporting and digesting judicial opinions, are subject to the New York state sales tax) (accessed Nov. 8, 2002; copy on file with *Journal of Appellate Practice and Process*) with *West Publ. Co. v. Commr. of Revenue*, 1990 Minn. Tax LEXIS 138 (Minn. Tax. Ct. 1990), *aff'd* 464 N.W.2d 512 (Minn. 1991) (ruling that computer equipment purchased by West to operate its Westlaw service qualified as capital equipment eligible for reduced rate of Minnesota sales tax).

Minimum page count thresholds have been imposed not only by the business determinations of entrepreneurs, but also by legislative fiat.¹⁰⁰ Thus, the last judicial opinions issued by the Supreme Court of the Republic of Texas prior to statehood remained unpublished and, for over a century, remained lost for want of a sufficient quantity to warrant a new volume.¹⁰¹ Conversely, there comes a point where the pages of a printed reporter become too numerous for sound business sense. Faced with just such a situation in 1885, the United States Supreme Court ordered that additional volumes of its official reporter books be published.¹⁰² And sound business prudence dictates, now as in years past, that a press run of books not be initiated unless and until there be a reasonable likelihood of a sufficient number of buyers to justify the expense.¹⁰³

The Internet and its underlying technologies have further complicated the cost factors. For one thing, the Internet offers an ever expanding menu of alternatives, fee-based and otherwise, to the ink-on-paper reporters.¹⁰⁴ For proprietary databases containing unreported opinions, payment of the database access fees is necessary in order to be able to research the unreported opinions.¹⁰⁵ And those fees are subject to several market forces.¹⁰⁶ It has become common practice for the providers and law firm customers to enter into agreements to keep the prices

100. *E.g.* 1869 N.Y. Laws, ch. 99, § 2 (“The volumes of reports shall be published at a price not exceeding two dollars and fifty cents per volume, of not less than five hundred pages.”); Paulsen, *supra* n. 75, at 275 n. 233 (citing Republic of Texas Act of Jan. 21, 1840, § 1, which would not authorize publication of opinions until “decisions shall be sufficient to make a volume containing not less than four hundred pages”).

101. Paulsen, *supra* n. 75, at 275.

102. 113 U.S. at v (Apr. 6, 1885); 114 U.S. at v (May 4, 1885).

103. *Lawyers Co-Operative Publishing Co., An Inside Story of Law Publishing* 11 (Law. Co-op. Publ. Co. 1925) (indicating that the initial publishing venture of Lawyers’ Co-op, the familiar *Lawyers’ Edition* of Supreme Court opinions, was conditioned upon a minimum of 2,500 advance subscriptions, a number that was in fact handily surpassed.).

104. *See e.g.* Elefant, *supra* n. 97.

105. *See e.g. Mt. Vernon Fire Ins. Co. v. Valencia*, 1993 U.S. Dist. LEXIS 13265 at *7 (E.D.N.Y. 1993) (allowing attorney \$827.56 as disbursement for telephonic connection charges for “on-line research necessary to obtain unreported cases.” It is not clear whether this included subscription charges to the database, or was solely the telephone connect charges.).

106. *See e.g.* Wendy R. Leibowitz, *As Legal Information Proliferates, Pricing, Budget Problems Escalate*, Natl. L. J. B16 (Aug. 17, 1998).

and terms of their services confidential,¹⁰⁷ but there is little doubt that the entry of competition into the online legal database market has affected the price in a manner consistent with the economic laws of supply and demand.¹⁰⁸

Also affecting the pricing is that, all else being equal, practitioners will use—and cite—the less expensive alternatives.¹⁰⁹ An online database service that prices itself out of reach of too many practitioners will be used and cited less often, and future researchers will be directed to its less expensive competitors by citations to the competitors' services and not to the higher priced one.¹¹⁰ On the other hand, providing law students with free or inexpensive access to otherwise pricey databases¹¹¹ in order to gain them as future customers makes good business sense.

And the market forces cannot help but come into play where an illustration or other extra-textual information is part and parcel of a judicial opinion.¹¹² The various available sources for the *Kudlacek* opinion¹¹³ illustrate such a situation. The LEXIS version of *Kudlacek* opinion indicates where the illustrations would appear in the text of the opinion, but does not actually show the illustrations.¹¹⁴ The original opinion, posted in PDF format at the Court's website, actually shows the illustrations.¹¹⁵ Thus, the fee-based service purveys a product

107. *Id.*

108. See e.g. Frank Y. Lui & Dittakavi Rao, *New Developments in the Online Legal Research Services: Loislaw, Versuslaw and Law.com*, Pa. L. Wkly. 12 (Aug. 28, 2000).

109. Less expensive, that is, from the perspective of the user's wallet. Some books and databases, online and otherwise, are very expensive in a direct way to the library offering them, but of no direct cost to the user when visiting the library.

110. This article's disproportionate ratio of LEXIS cites to Westlaw cites is, for example, a function of the free availability of the LEXIS database in the library of the academic institution where the author teaches, while Westlaw is not available there. Under the circumstances, the author has not seen fit to subscribe to the Westlaw service.

111. See Richard A. Matasar & Rosemary Shiels, *Electronic Law Students: Repercussions on Legal Education*, 29 Val. U. L. Rev. 909, 911 (1995).

112. See notes 18-44, *supra*, and the accompanying text for a discussion regarding inclusion of illustrations and other non-text data in judicial opinions.

113. *Kudlacek v. DBC, Inc.*, 115 F. Supp. 2d 996 (N.D. Iowa 2000).

114. See 2000 U.S. Dist. LEXIS 14384 at *12, *18, *21, *27, *35, *80, *118, *135-36, *167, *169, *184.

115. See <[http://www.iand.uscourts.gov/iand/decisions.nsf/0/6B244500AE791420862569690052547B/\\$File/Kudlacek.pdf](http://www.iand.uscourts.gov/iand/decisions.nsf/0/6B244500AE791420862569690052547B/$File/Kudlacek.pdf)> at 9, 13, 16, 20-22, 27, 51, 72, 81, 98, 100, 110, 111 (accessed Nov. 10, 2002; copy on file with Journal of Appellate Practice and Process).

inferior to one freely available. It is highly likely that situations exemplified by the *Kudlacek* opinion will eventually induce LEXIS to upgrade its technology to show illustrations.

For its part, the judiciary must concern itself with budgetary aspects of making electronic databases available to judges and other courthouse personnel.¹¹⁶

The recovery of expenses incurred by the user in accessing the judicial opinions is an issue of obvious concern to one in the practice of law. Some courts, in fixing attorney fees, disallow certain attorney disbursements as items that should be included in the office overhead.¹¹⁷ Telephone expenses have often been among items disallowed,¹¹⁸ as have fax charges,¹¹⁹ a result consistent with the concept of a telecopier machine being little more than a sophisticated telephone attached to a telephone line.

But recognizing that the new technologies now allow the tracking of items which formerly were too difficult to quantify with precision and thus placed into general overhead pools for cost-accounting purposes, some courts have, under certain circumstances, begun to allow some disbursements for items formerly disallowed as office overhead.¹²⁰ Among such overhead items are computerized legal research, which almost always entails access to judicial opinions in remote electronic databases. Some courts have recognized that “[t]he cost of computerized research (using services such as LEXIS and Westlaw) should be treated as a disbursement if the research was necessary and appropriate. . . . [T]he use of computers for research is highly economical and can save countless hours of lawyer time.”¹²¹

116. See e.g. Gary Spencer, *Judiciary Seeks 2.5% Raise in State Funds*, N.Y.L.J. 1 (Nov. 17, 1995) (indicating that proposed initiative to give judges access to electronic legal research and judicial opinions was the most costly of the initiatives proposed by the New York State judiciary); see also Ohio Rev. Code Ann. § 2303.201 (Anderson 2000) (providing that Ohio courts are authorized to impose a surcharge upon the filing fees charged to litigants in order to provide for the courts' access to online judicial opinions).

117. E.g. *Matter of Diamond*, N.Y.L.J. 30 (Surr. Ct., Westchester Co. July 14, 1993); see also Kenneth H. Ryesky, *An Overhead View of Aitken and Herlinger*, 22 Westchester Bar J. 219, 222 (1995).

118. E.g. *Ramos v. Lamm*, 713 F.2d 546, 559 (10th Cir. 1983); *Estate of Broslaw*, N.Y.L.J. 34 (Surr. Ct., Kings Co. Sept. 24, 1999).

119. E.g. *Matter of Ilya D.*, N.Y.L.J. 29 (Surr. Ct., Kings Co. Sept. 9, 1996).

120. E.g. *Matter of Aitken*, 610 N.Y.S.2d 436 (Sup. Ct. 1994); see also Ryesky, *supra* n. 117.

121. *Aitken*, 610 N.Y.S.2d 436, 439.

Given a situation where some courts disallowed reimbursement for expenses of using LEXIS and Westlaw and similar electronic databases of judicial opinions,¹²² while a growing number indicated a willingness to allow such reimbursement in some circumstances,¹²³ legislative efforts are underway to specifically allow attorney reimbursement for computerized legal research,¹²⁴ but at least one bill to that effect was vetoed in 2002.¹²⁵ Under certain circumstances, some administrative agencies will now allow recovery of online legal research expenses incurred in the administrative adjudication of disputes.¹²⁶ On the other hand, however, insurance companies often decline to reimburse their retained outside counsel defense attorneys for online legal research.¹²⁷

Dollars and cents considerations go well beyond the actual text-media technologies used to access judicial opinions. When, for example, the applicable rules of citation in a particular court mandate that briefs cite judicial opinions to a particular source (official or otherwise),¹²⁸ the attorney writing the brief must own or otherwise have access to such source materials.¹²⁹

Cost factors are thus inextricably entwined with the text-media issues of judicial opinions. Unfavorable economic factors

122. *E.g. Harris Trust & Sav. Bank v. Am. Natl. Bank & Trust Co.*, 594 N.E.2d 1308, 1315 (Ill. App., 1st Dist., 3d Div. 1992).

123. *E.g. Cappelletti Bros., Inc. v. Broward County*, 754 F. Supp. 197, 198 (S.D. Fla. 1991).

124. *See e.g.* S.B. 2938, 2001-2002 N.Y. Sen. Sess. (Feb. 27, 2001).

125. *See* 2001 Bill Tracking N.Y.S.B. 2938 (available in the Bill Tracking subfile of the New York state file in the LEXIS database).

126. *E.g. Matter of CNA Industrial Engr., Inc.*, 1997 U.S. Comp. Gen. LEXIS 402 at *7 (1997). In the realm of vendor bid protests associated with Federal contracting actions, computerized legal research costs are treated like any other bid-protest expenditure, the recovery of which is allowable when supported by adequate recordkeeping. *See* Henry R. Richmond, *Recovery of Legal Expenses in Bid Protests Before the GAO and the GSBICA*, 1994 Army Law. 3, 10.

127. *See e.g. Dynamic Concepts, Inc. v. Truck Ins. Exch.*, 71 Cal. Rptr. 2d 882, 889 (Cal. App. 4th Dist., 3d Div. 1998); Douglas R. Richmond, *The Business and Ethics of Liability Insurers' Efforts to Manage Legal Care*, 28 U. Mem. L. Rev. 57, 97 n. 189 (1997).

128. *E.g.* Ohio 1st Dist. Loc. App. R. 6(D)(1) (2001) (requiring citations to both official and West reporters); Pa. R.A.P. Rule 2119(b) (2002) (same).

129. Maggs, *supra* n. 5, at 668 ("The step of making optional the parallel citation to the West reporter is very important. It means that writers of articles (or of briefs in case of a court rule) do not need to include an expensive set of West reporters in their libraries.").

associated with text media can effectively serve as gatekeepers to exclude or inhibit an opinion from serving as precedent.

C. Finding Aids

The sound and systematic organization of judicial opinions is vital to the orderly functioning of the legal system and the individuals employed in its service.¹³⁰ Once judicial opinions are set forth and published, they are of little use as precedent without some means for the bench and bar to find them. In approximately 1490, an alphabetically-arranged digest of English judicial opinions entitled *Abridgement of the Laws of England* was compiled, attributably by Nicholas Statham, the Baron of the Exchequer.¹³¹ Indices and other aids for researching judicial opinions have been standard fare ever since.

1. Indices and Tables of Contents

Prior to the advent of electronic computing in the late twentieth century, when ink on paper was the state of the art, the bench and bar were most heavily dependent upon indices and tables of contents to find their judicial opinions. There are, of course, several entrées to use in finding an opinion. If one knows the name under which the case is captioned, then the finding aids can include a table of contents listing opinions as they appear in the volume, an alphabetical listing of cases by plaintiff, or an alphabetical listing of cases by defendant.

Generally speaking, the name under which a case is captioned is of limited value to the researcher in finding the issues of the case unless one happens to already be familiar with the case.¹³² Therefore, many if not most reporters have long

130. See e.g. 1 James Kent, *Commentaries on American Law* 518-19 (Lect. XXI at 473-75), available at <http://www.constitution.org/jk/jk_021.html> (accessed Dec. 29, 2002; copy on file with Journal of Appellate Practice and Process).

131. See generally *Indexing Specialized Formats and Subjects* 158 (Hilda Feinberg, ed., Scarecrow Press 1983).

132. There are, to be sure, instances in which the name of a party to a case can indeed be a useful entrée. Certain parties, including but not limited to government agencies, tend to be involved in cases where certain issues typically arise, e.g. *Midland Twp. v. St. Boundary Commn.*, 259 N.W.2d 326 (Mich. 1977) (boundaries of political subdivisions). Similarly, the captioned names of some judicial opinions can clue the researcher into some of the issues. E.g. *Trade-Mark Cases*, 100 U.S. 82 (1879); *In re Birmingham Asbestos Litig.*, 997

included an index of the various subjects dealt with in the opinions of the volume. Expanding upon the index system, the opinions are often briefed in a digest, and the digested blurbs are then arranged under subject headings.

Using the indices, digests and tables of each individual volume necessitates the physical accession of each volume by the researcher. The research process is made significantly more efficient when the indices, digests and tables give coverage to more than a single volume, whether progressively accumulated in each volume as it is published or as a separate stand-alone tome or series of tomes.

Competent research usually has occasion to use several approaches to finding the precedential opinions for any particular project or assignment. Accordingly, the best reporters of judicial opinion will include diverse finding aids. Mindful that the quality of any published reporter is determined, in no small measure, by the quality of its finding aids, the New York legislature specifically required that the volumes published by its official Reporter include "the usual digest, head notes, tables of contents and index."¹³³

During the formative era, the organization of published American judicial decisions varied in its consistency and was ill conducive to effective legal research.¹³⁴ This would continue until John B. West began his American Digest System, an innovation that gave consistency to legal research.¹³⁵ West's system still persists to this day, as judicial opinions from diverse courts are annotated by trained attorneys in accord with the Digest System headings as soon as practicable after the opinions are issued.

For all its salutary effects upon the American legal system, the American Digest System has its shortcomings. For one thing, the system is limited to a specific universe of opinions, and those opinions that are not part of the universe are simply

F.2d 827 (11th Cir. 1993).

133. 1869 N.Y. Laws, c. 99, § 1.

134. Thomas J. Young, Jr., *A Look at American Law Reporting in the Nineteenth Century*, 68 *Law Libr. J.* 294, 304-06 (1975); see also Wilfred J. Ritz, *American Judicial Proceedings First Printed Before 1801* xvii-xxiii (Greenwood Press 1984).

135. Thomas A. Woxland, "Forever Associated with the Practice of Law": *The Early Years of the West Publishing Company*, 5 *Legal Ref. Serv. Q.*, no. 1, 115, 120 (Spring 1985).

unlocatable through the system. In such regard, this author has previously observed that

[an] anomaly of the *Herlinger-Aitken* development is that while *Aitken* has been reported in the official New York Miscellaneous Reports and in the New York Supplement, *Herlinger*, apparently the better of the two decisions, has only appeared in the New York Law Journal and has not been reported in the New York Miscellaneous Reports or the New York Supplement, and is not cited in *New York Jurisprudence*. That situation will, if anything, obfuscate future legal research on the matter.¹³⁶

That the *Herlinger* opinion is obscured from attorneys who depend upon West's American Digest System is quite exemplified by the *Graham* case,¹³⁷ initially decided in upstate Otsego County where the *New York Law Journal* does not circulate among the legal profession as universally as it does in the New York City metropolitan area. *Graham* gives short shrift to the *Aitken* opinion,¹³⁸ and *Herlinger*, though a better decision, remained unmentioned in the *Graham* opinion¹³⁹ and indeed, was not mentioned at all in any of the briefs or papers filed at trial or appellate level.¹⁴⁰

Another shortcoming of the American Digest System is that its headnotes address the opinion from the perspective that existed at the time, and are not retrospectively revised to take future legal developments into account. Using the *Aitken* case as an example, the case was digested using two familiar West's American Digest System's Key Numbers for "Costs" and one for "Executors and Administrators."¹⁴¹

If after the opinion was digested and published, the American Digest System should add a new key number for text-media issues, however, such a new key number would not be

136. Ryesky, *supra* n. 117, at 227. For a discussion of the sorts of attorney-reimbursement issues that were at the heart of *Herlinger* and *Aitken*, see notes 117 through 127 above and the accompanying text.

137. *Est. of Graham*, 656 N.Y.S.2d 434 (App. Div., 3d Dept 1997).

138. *Id.* at 439.

139. *Id.*

140. See Record on Appeal, *Est. of Graham*, No. 77011 (App. Div., 3d Dept. 1997) (reproduced on microfiche No. 3-97-144) (reviewed on May 8, 1998, by the author, whose notes indicate that no mention of *Herlinger* appears in any papers in the record).

141. *Aitken*, 610 N.Y.S.2d at 437.

applied retrospectively to the *Aitken* case; ergo, a researcher who seeks cases from the perspective of text-media technologies would not directly find *Aitken* using any such new key number in the Digest System. And that would limit the opportunity for *Aitken* to be cited as precedent by counsel or judge.

2. Headnotes

Although headnotes have long accompanied published judicial opinions and have long been an integral part of legal research,¹⁴² they achieved perfection as a research tool during the 1870s when West devised his system that ties the headnotes to a numbered legal classification system.¹⁴³ West's National Reporter System has since become an integral, familiar and ubiquitous component of the American legal-information system.

Other entrepreneurs have similarly developed their own systems that link headnotes into numbered classification systems, including the Lawyers Co-operative Publishing Company, organized in 1882 for the specific purpose of publishing the back opinions of the United States Supreme Court (the official set of which was, at the time, out of print and scarce), and subsequently expanding into publishing other legal opinions and indeed, other books for the bench and bar.¹⁴⁴ The publication efforts by West and Lawyers Co-Op. would continue to enhance the quantity and quality of judicial opinions and other legal materials available to the profession and the public.¹⁴⁵ Publishers of specialized reports for environmental law, tax law, and the like have their own headnote and digest systems, which likewise work similarly to the West system, though the

142. See 1869 N.Y. Laws, c. 99, § 1 (requiring that official court opinion reports include "the usual digest, head notes, tables of contents and index") (emphasis supplied).

143. See e.g. Woxland, *supra* n. 135, at 115.

144. *Inside Story*, *supra* n. 103, at 11-12.

145. The healthy competition between West and Lawyers Co-op. did, however, wax contentious at times. See *West Publ. Co. v. Law. Co-op. Publ. Co.*, 64 F. 360 (N.D.N.Y. 1894); *West Publ. Co. v. Law. Co-op. Publ. Co.*, 79 F. 756 (2d Cir. 1897); *Law. Co-op. Publ. Co. v. West Publ. Co.*, 52 N.Y.S. 1120 (App. Div., 4th Dept. 1898).

classification numbers for the topics often do not correspond to the West Key Numbers.¹⁴⁶

“A headnote is . . . an indispensable and valuable tool for purposes of legal research, but it is ordinarily not what the Judge said, but rather a condensed, concise version of what the Editor understood the Court to hold, say, or both.”¹⁴⁷ Headnotes are not part of the judicial opinion itself, and are usually written by employees of the publisher of the reporter in which the opinion appears.¹⁴⁸ Accordingly, one “would expect to find such variances of style as would be produced by the personal equations of the different contributors.”¹⁴⁹

Because the headnotes are not the actual judicial opinions, and because by design they abbreviate the information set forth in full by the opinion, and because they reflect the style of the digester and not that of the person writing the opinion, vital data from the opinion can be omitted from its headnotes; or worse yet, the headnote can inaccurately represent the gist of the opinion.¹⁵⁰ But notwithstanding all of the variables that might affect any particular headnote, a publisher that has an effective system (and competent personnel) for writing headnotes will facilitate the legal research process. A skilled professional case digester who writes headnotes can enhance the utility of his or her employer’s publication by helping the researcher find the information sought.

As an example, one opinion of the Canadian Trade Marks Opposition Board was illustrated with, *inter alia*, a matchbook cover used by the opponent to advertise its “Pharaoh’s” restaurant and cabaret establishment in Vancouver, as evidence of claim to its trademark.¹⁵¹ Neither the words “match,” “matchbook” nor “match cover” are used anywhere in the text of the opinion, but the headnote to the case uses the phrase

146. See e.g. Nancy Perkins Spyke, *Making Sense out of Secondary Sources in Environmental Law: A Research Primer*, 25 *Envtl. L.* 93, 95-100 (1995).

147. *Barber v. M/V Blue Cat*, 372 F.2d 626, 629 n. 7 (5th Cir. 1967).

148. But some tribunals, including the United States Tax Court, supply the headnotes for some of their opinions. See e.g. Mary Ann Cohen, *How To Read Tax Court Opinions*, 1 *Hous. Bus. & Tax L.J.* 1, 8 (2001).

149. *West v. Law. Co-op.*, 79 F. at 765.

150. See generally Cohen, *supra* n. 148.

151. *Fury Inv., Ltd. v. Stein*, 49 C.P.R. (2d) 268, 271 (Canada Trade Marks Opposition Bd. 1979).

“match covers,”¹⁵² thus facilitating the finding of the opinion by a researcher seeking legal cases involving matchbooks by bringing the concept of a matchbook from an illustrated form to textual form. A well-written headnote can thus serve as a text-medium bridge for locating non-textual data. As judicial opinions containing non-textual data proliferate,¹⁵³ headnotes can be expected to make it easier for courts and lawyers to find and use such opinions as precedent.

3. Search engines

Computerized keyword searching of text, arguably the most significant finding aid to develop from computer technology, is a powerful tool that has significantly improved legal research efficiency over that of traditional manual research methods.¹⁵⁴ Indeed, it is the very essence of legal research database services such as LEXIS and Westlaw.

But the effective use of a search engine to locate keywords, and to find therefrom the legal authorities relevant to the matter being researched, is both an art and a science, a skill to be acquired and honed through practice.¹⁵⁵ The variables that determine the quality of the keyword search include the researcher's skills, the database covered by the search, and the workings of the search engine itself. The technologies made possible by the computer can attach major consequences to minor typographical errors.¹⁵⁶

152. *Id.* at 268.

153. See nn. 53-58, *supra*, and accompanying text.

154. See e.g. Lynn Foster, *Electronic Legal Research, Access to the Law, and Citation Form For Case Law: Comparison, Contrasts, and Suggestions for Arkansas Practitioners*, 16 UALR L.J. 233 (1994); see also *Harman v. Lyphomed, Inc.*, 945 F.2d 969, 976 (7th Cir. 1991) (noting that the use of computer-assisted research methods can reduce the total time devoted to research); *Estate of Delancy*, N.Y.L.J. 25 (Surr. Ct., Suffolk Co. Sept. 25, 1996) (noting, in allowing attorney reimbursement for computerized research, that “the use of computers for research has become more economical than the traditional methods of researching a matter”). The economic issues of computer research, as addressed in cases such as *Harman* and *Delancy*, are more fully discussed at notes 104 through 127 above, and in the accompanying text.

155. Cf. Nabil R. Adam, *Remarks, in Conference: The Development and Practice of Law in the Age of the Internet*, 46 Am. U. L. Rev. 327, 463 (1996).

156. Even the word “typographical” has been the subject of a typographical error. In a malapropistic spree referring to certain irregularities in an instrument admitted to probate, one court wrote “[b]oth this and the topographical [sic] alteration of the date of the instrument

Some official court websites leave much to be desired in their search features. The website of the United States Tax Court, for example, has a search engine that supports searches by opinion release date and the name of the petitioner, but has no capacity to search for keywords in the texts of the opinions.¹⁵⁷ Other official websites directly support keyword searches of opinion texts,¹⁵⁸ and still others, including that of the United States Supreme Court, have their individual volumes of opinions available on the Internet, which the accessor can search using the text finding function of a web browser or word-processing program.¹⁵⁹

The search engines can be very particular about textual exactitude. The hyphenation of words and the pagination of the databases can pose complications for the keyword searching process. Those who compile databases of judicial opinions must exercise care in how the opinions are paginated, else the search engines would be rendered ineffective. That the compilers of the LEXIS database are aware of this issue is apparent from their

appear to have been made prior to the will's execution. Accordingly, they are entitled to be accorded testamentary affect [sic]." *Est. of Lomonaco*, N.Y.L.J. 30 (Surr. Ct. Suffolk Co. Aug. 24, 1999).

157. See <<http://www.ustaxcourt.gov>> (offering "Historical Opinions" as a menu choice on the main page that, when clicked, leads the viewer to a search screen) (accessed Dec. 6, 2002; copy on file with Journal of Appellate Practice and Process). In response to the author's inquiry, the Tax Court's Webmaster indicated that there were no plans to bring any keyword search facilities to the website. E-mail message from Webmaster, U.S. Tax Court, to Kenneth H. Ryesky (Oct. 11, 2000) (copy on file with author).

The Idaho State Tax Commission also uses PDF format for its opinion postings and, given its policy of redacting the names of the taxpayer parties from its published opinions, identifies its opinions on its website by date and docket number only, which makes it, accordingly, even less search-friendly than that of the United States Tax Court. See <<http://www2.state.id.us/tax/decisions.htm>> (accessed Dec. 6, 2002; copy on file with Journal of Appellate Practice and Process) The website administrator for the Idaho State Tax Commission confirmed this, noting that "our search page is unable to search the decisions. This is because the decisions are in PDF format and the search function cannot search key words in a PDF document. The search function views pdf's more like graphics than searchable documents." E-mail message from Leslie Jones to Kenneth H. Ryesky, (Mar. 19, 2001) (copy on file with author).

158. See e.g. <<http://decisions.courts.state.ny.us/nyscomdiv/search/comdivintro.htm>> (collecting cases from the Commercial Division of the New York County Supreme Court.) (accessed Dec. 6, 2002; copy on file with Journal of Appellate Practice and Process).

159. See e.g. <<http://www.supremecourtus.gov/opinions/boundvolumes.html>> (accessed Dec. 6, 2002; copy on file with Journal of Appellate Practice and Process).

pagination practices, as exemplified by the *Hohn*¹⁶⁰ and *Cotto*¹⁶¹ cases.

The LEXIS indication of where a page break occurs in a published reporter is a bracketed asterisked number corresponding to the page number in the printed version. In *Hohn*, the word “cer-tificate” breaks between pages 241 and 242 of the official printed version, with “cer-” concluding the text on page 241 and “tificate” beginning the text on page 242.¹⁶² In the LEXIS version the break symbol is shown as “certificate [*242]” instead of “cer [*242] tificate,” which would show the actual place of the break.¹⁶³ Several other page breaks occur amidst a word in the official United States Reports version of *Hohn*, all of which are similarly indicated in the LEXIS version by the bracketed asterisked number following the whole word instead of the place where the word is broken.

As in the *Hohn* case, the official New York Reports version of *Cotto* features hyphenated word breaks between pages 80 and 81, between pages 83 and 84, and between pages 87 and 88.¹⁶⁴ The two *West* system reporters reflect those breaks in their indications of the official paginations.¹⁶⁵ The LEXIS version, however, places the bracketed asterisked page numbers after the entire word, so that the indication of the original word breaks respectively appear as “Hellenbrand” instead of “Hel[*81] lenbrand,”¹⁶⁶ “defendant [*84]” instead of “de[*84]fendant,”¹⁶⁷ and as “Avenue [*88]” instead of “Ave[*88]nue.”¹⁶⁸ Were it done otherwise, the search engines and the “find” functions would miss those occurrences of the word which, in the official version, is broken by hyphenation. Similarly, a keyword search

160. *Hohn v. U.S.*, 524 U.S. 236, 118 S. Ct. 1969, 141 L. Ed. 2d 242, 1998 U.S. LEXIS 3887 (1998).

161. *People v. Cotto*, 699 N.E.2d 394, 1998 N.Y. LEXIS 1838 (1998).

162. 524 U.S. at 241-42.

163. 1998 U.S. LEXIS 3887.

164. 92 N.Y.2d at 80-81 (dividing “Hel-lenbrand”), 83-84 (dividing “de-fendant”), 87-88 (dividing “ave-nue”).

165. 677 N.Y.S.2d at 42, 43 and 46, 699 N.E.2d at 401, 402 and 405. The respective *West* reporters insert the symbol “⊥” to indicate the precise breaks in pagination as they occur in the official reports.

166. 1998 N.Y. LEXIS 1838 at *25.

167. 1998 N.Y. LEXIS 1838 at *32.

168. 1998 N.Y. LEXIS 1838 at *40.

would be ineffective where the break indicator occurs amidst a phrase that is the subject of the search.

In the LEXIS pagination of the *Hohn* opinion, LEXIS page *49 occurs in the middle of the phrase “principles of [***49] law.”¹⁶⁹ The *Hohn* case will be a “hit” in a LEXIS search of the phrase “principles of law” because the bracketed paginations are ignored by the LEXIS search engine; however, once the *Hohn* opinion is accessed by LEXIS, the text-locating function of the browser will not find the phrase “principles of law” because the page number has been insinuated into the phrase as it appears in the document.

Some of the efforts on the part of database purveyors to make their search engines useful to the legal profession have caused results that can be characterized as idiosyncratic if not outright dysfunctional. For example, most of the LEXIS database hits on the search term “mimeograph” do not contain the word at all, though many do contain a personal surname “Mims.” The author was informed that

[t]he LEXIS search engine treats the word “mim” as an equivalent to mimeograph in legal sources. Since it also will automatically find the plural of a word, unless instructed otherwise, it will find mims. If you enter SINGULAR (MIMEOGRAPH) as your keyword, the search result will be limited to 28 cases. It will still find ‘mim’ in several instances, but will eliminate many of the miss-hits.¹⁷⁰

Westlaw’s innovations in search-engine technology have likewise resulted in complexities and complications of which the user (and those who give technical support to frustrated users) should be cognizant.¹⁷¹

169. 1998 U.S. LEXIS 3887 at *49. Like other United States Supreme Court opinions in the LEXIS database, there are three different paginations in the LEXIS version of *Hohn*. The official United States Reports paginations are indicated with a bracketed single-asterisked number, the West’s Supreme Court Reporter paginations with a bracketed double-asterisked number, and the Lawyers Edition paginations with a bracketed triple-asterisked number.

170. E-mail message from Beth P. Bigman, LEXIS-NEXIS.com, to Kenneth H. Ryesky, (Oct. 25, 2000) (copy on file with author).

171. See generally, Sheilla E. Desert, *Westlaw is Natural v. Boolean Searching: A Performance Study*, 85 L. Lib. J. 713 (1993).

Another old artifact that has come back to haunt the search engines is the fact that the older reporters often abbreviated the parties' names in the captions. Thus, a LEXIS search using "West Publishing" and "Lawyers Co-operative" as search terms for the parties will miss two key opinions from major litigation between those two publishers during the 1890s because the plaintiff's name in the caption is abbreviated as "West Pub. Co."¹⁷² The first district court opinion from that litigation will, however, be hit by such a search because the parties' names were not abbreviated in the caption.¹⁷³

All the more subject to abbreviation is a Supreme Court decision with the lengthy caption of *The Philadelphia, Baltimore and Wilmington Railroad Company v. The Philadelphia and Havre de Grace Steam Towboat Company*,¹⁷⁴ each adversary's name rather prolix even when standing alone. With the use, avoidance, and/or omission of abbreviations, ampersands, definite articles and even key words, the designation of that opinion in judicial opinions has had many variant forms.¹⁷⁵

172. See *West Publ. Co. v. Law. Co-op. Publ. Co.*, 79 F. 756, 1897 U.S. App. LEXIS 2361 (2d Cir. 1897); *West Publ. Co. v. Law. Co-op. Publ. Co.*, 64 F. 360, 1894 U.S. App. LEXIS 3050 (N.D.N.Y. 1894). It is noted that the *Bluebook* convention for abbreviating "Publishing" when that word appears after the initial word in the party's name is "Publ'g," see *The Bluebook: A Uniform System of Citation*, 303, tbl. T.6 (Columbia L. Rev. Assn., et al., eds., 17th ed., 2000). Similarly, the *ALWD Manual* convention for such abbreviation is "Publ.," see *Appendix 3 in ALWD Manual*, *supra* n. 5, at 412. The use of diverse citation conventions would have obvious implications for search engines that require precise spelling of the searched words.

173. See *West Publ. Co. v. Law. Co-op. Publ. Co.*, 53 F. 265, 1893 U.S. App. LEXIS 2410 (N.D.N.Y. 1893).

174. 64 U.S. 209 (1859). The caption is spelled out in full in the official United States Reports.

175. E.g. *Atlantic Transport Co. v. Imbrovek*, 234 U.S. 52, 59 (1914) ("The Philadelphia, Wilmington & Baltimore R.R. Co. v. The Philadelphia & Havre de Grace Steam Towboat Co."); *The Propeller Commerce*, 66 U.S. 574, 580 (1861) ("The Philadelphia, Wilmington and Baltimore Co. v. The Philadelphia and Havre de Grace Co."); *Canadian Aviator Ltd. v. U.S.*, 324 U.S. 215, 228 n. 31 (1945) ("Philadelphia, W. & B. R. Co. v. Philadelphia & H. de G. Towboat Co."); *Boston & Me. R.R. v. Hooker*, 233 U.S. 97, 152 (1914) ("Philadelphia, W. & B.R. Co. v. Philadelphia Towboat Co."); *Grant Smith-Porter Ship Co. v. Rohde*, 257 U.S. 469, 476 (1922) ("Philadelphia, Wilmington & Baltimore R.R. Co. v. Philadelphia Towboat Co."); *North P. S.S. Co. v. Hall Bros. Marine Ry. & Shipbuilding Co.*, 249 U.S. 119, 125 (1919) ("Philadelphia, Wilmington & Baltimore R.R. Co. v. Philadelphia, &c. Steam Towboat Co."); *In re Fassett*, 142 U.S. 479, 485 (1892) ("Phila. &c. Railroad v. Havre de Grace Steam Tow Boat Co.").

In doing keyword searching, there are certain tricks of the trade that are peculiar to a particular area of the law. For example, in tax law, the Internal Revenue Code is properly cited as "I.R.C." instead of "26 U.S.C."¹⁷⁶ Accordingly, a judicial opinion that uses the "26 U.S.C." convention instead of the standard "I.R.C." convention in citing to the Internal Revenue Code would not be picked up as a hit in a search where "I.R.C." is used as the keyword.¹⁷⁷ Similarly, in federal contracts law, the Federal Acquisition Regulations are commonly spoken of as the "FAR" and are sometimes cited accordingly instead of as sections of the C.F.R.¹⁷⁸ But where the writer of the judicial opinion has the foresight to use both variants of the citation in the text, then that opinion becomes more susceptible to being hit by a keyword search.¹⁷⁹

And if search engines can encounter complications when the input keywords are correctly spelled, then misspelled

Heroic efforts to shorten the wordy caption of the cited opinion are apparent in at least one brief. See *Rounds v. Cloverport Foundry & Mach. Co.*, 237 U.S. 303, 304 (1915) (headnote summarizing counsel's argument: "*The Philadelphia v. Towboat Co.*"). And, as was bound to eventually happen, the fuzzy line separating typographical error from malapropism has in fact been crossed. See *Kermarec v. Compagnie Generale Transatlantique*, 358 U.S. 625, 628 (1959) ("*Philadelphia, W. & B. R. Co. v. Philadelphia & Havre de Grace Steam Tugboat Co.*") (emphasis supplied).

176. See *Bluebook*, *supra* n. 172 at 85; *ALWD Manual*, *supra* n. 5, at 103. Though both the *Bluebook* and the *ALWD Manual* use the permissive "may" in specifying the use of "I.R.C." instead of "26 U.S.C.," such special usage has long been the norm among the members of the taxation bar. See e.g. Andrea I. Castro, *Overview of the Tax Treatment of Nonprofit Hospitals and Their For-Profit Subsidiaries: A Short-Sighted View Could Be Very Bad Medicine*, 15 Pace L. Rev. 501, 501 n. 1 (1995) ("Although the Internal Revenue Code ('the Code' or 'I.R.C.') is codified at 26 U.S.C., it will hereinafter be referred to by its I.R.C. designation alone (for example I.R.C. 501(c)(3)), as this is the common way that the Code is referenced in tax materials and by practitioners."); see also *Bluebook*, *supra* n. 169, at 16 (arguably requiring the use by practitioners of the "I.R.C." convention in court documents and legal memoranda). In a similar vein, the convention among the members of the taxation bar is to use "Treas. Reg." instead of "26 C.F.R." *Id.* at 16, 100-01.

177. E.g. *Fran Corp. v. U.S.*, 164 F.3d 814 (2d Cir. 1999) (using "26 U.S.C." citation conventions throughout, so that a keyword search using "I.R.C." conventions would be unsuccessful).

178. See e.g. *Gen. Elec. Co. v. Delaney*, 251 F.3d 976 (Fed. Cir. 2001) (citing sections of the "FAR," but not mentioning "48 C.F.R.>").

179. E.g. *W. Union Life Assurance Co. v. Hayden*, 64 F.3d 833, 839 (3d Cir. 1995) (including a paragraph that refers to both I.R.C. § 104(a)(2) and 26 U.S.C. § 104(a)(2)); *Liti v. Commr.*, 289 F.3d 1103, 1105 (9th Cir. 2002) (making reference to "I.R.C. § 7430, 26 U.S.C. § 7430").

keywords will frustrate an orderly search all the more.¹⁸⁰ One example of such misspelling is to be found in the *Nobelman* case.¹⁸¹ Though the correct spelling of the debtors' name is "Nobelman" the *Federal Reporter* opinion spells it in the caption and throughout the text as "Nobleman,"¹⁸² reflecting the spelling in the actual opinion document by the Fifth Circuit.¹⁸³ The Fifth Circuit's misspelling of the parties' name is, in turn, repeated in several opinions that cite it.¹⁸⁴

The LEXIS version of the Fifth Circuit opinion has corrected the spelling to "Nobelman" in the case caption and indeed, in the text.¹⁸⁵ Accordingly, the appellate opinion cannot be located in the LEXIS database by searching for the word "Nobleman," which is the very way the name of the case was (mis)spelled in the original document.

Whether and how a search engine finds a judicial opinion is an issue of great import, and one that ought to be given due regard by the programmers of the search engine, the compilers and editors of the database, the author of the decision itself, and, of course, the user.

4. Textual Characters

The set of textual characters does not necessarily remain

180. See e.g. D. Michael Risinger, *Navigating Expert Reliability: Are Criminal Standards of Certainty being left on the Dock?* 64 Alb. L. Rev. 99, 102 n. 16 (2000); Foster, *supra* n. 154, at 239; Patrick Baude, *Interstate Dialogue in State Constitutional Law*, 28 Rutgers L. J. 835, 847 (1997).

181. *Nobelman v. Am. Sav. Bank*, 508 U.S. 324 (1993), *aff'g In re Nobleman* [sic], 968 F.2d 483 (5th Cir. 1992), *aff'g* 129 B.R. 98 (N.D. Tex. 1991).

182. 968 F.2d 483.

183. The opinion is available through the free-text search feature on the Fifth Circuit's website. See <<http://www.ca5.uscourts.gov/Opinions/Opinhome.cfm>> (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process).

184. E.g. *Matter of Armstrong*, 206 F.3d 465, 471 (5th Cir. 2000); *Lomas Mortgage U.S.A. v. Wiese*, 998 F.2d 764, 764 (9th Cir. 1993); *PNC Mortgage Co. v. Dicks*, 199 B.R. 674, 678-79 (N.D. Ind. 1996). The *PNC Mortgage* case further confuses matters by referring to the Fifth Circuit appellate opinion as "*Nobelman v. American Sav. Bank (In re Nobleman I)*" and then again as "*Nobelman v. American Sav. Bank (In re Nobleman II)*," misspelling the misspelling (ergo correctly spelling) the name of the case in the reference, and then correctly spelling the misspelling (ergo misspelling) the nickname it had bestowed upon the case. *PNC Mortgage*, 199 B.R. at 679 n. 2. The same sort of confusion appears in *Armstrong*. See 206 F.3d at 471.

185. See 1992 U.S. App. LEXIS 18613.

entirely consistent from one text medium to another. Even within one genre of text media technology the character set can vary, as, for example, when viewing and comparing the keyboards of various typewriter models.¹⁸⁶ Where text is transcribed from one medium to another, compatibility between media can affect the accuracy of the text. This is relevant to both textual accuracy and the efficacy of finding aids such as search engines.

The section symbol is often used in judicial opinions where a particular statute or regulation must be referenced. An artifact of character-set incompatibilities with respect to the section symbol appears on page 26 of the *New York Law Journal* issue of December 19, 2001. There, an opinion of the Appellate Term of the Second and Eleventh Judicial Districts¹⁸⁷ cites and quotes a “section 27-2107(b) of the Housing Maintenance Code” of New York City, spelling word “section” out in full.¹⁸⁸ In the next column of the *New York Law Journal* page, the same opinion cites and quotes a New York State statute as “Multiple Dwelling Law § 325(2),” thus displaying the increasingly disused cent symbol in the place where the section symbol should be.¹⁸⁹ In that same column, the next opinion, decided by a different Appellate Term panel sitting at a different geographical location, uses the section symbol properly to designate the statutory sections of New York’s Penal Law.¹⁹⁰ The diverse treatment of the section symbol was, in all likelihood, the result of word-processing compatibility issues among the respective

186. See e.g. Wilfred A. Beeching, *Century of the Typewriter* (St. Martin’s Press 1974) (containing illustrations of diverse keyboard styles).

187. Within the Second Department of the Appellate Division of the Supreme Court of the State of New York are two Appellate Term tribunals, one that hears appeals from certain inferior courts in the Second and Eleventh Judicial Districts, and another that hears appeals from certain inferior courts in the Ninth and Tenth Judicial Districts. Appeals from the Appellate Term are taken to the corresponding Appellate Division. See Siegel, *supra* n. 96, at 16.

188. *9 Montague Terrace Assoc. v. Feuerer*, N.Y.L.J. 26 (App. Term, 2d Dept., Dist. 2 & 11 Dec. 11 & 19, 2001) (numeral “9” in original). The *9 Montague Terrace* opinion is also reported at 191 Misc. 2d 18, 740 N.Y.S.2d 553, and at 2001 N.Y. Misc. LEXIS 1236, which all spell out “section 27-2107(b)” and which, unlike the *New York Law Journal* version, properly use the section symbol “§” in “Multiple Dwelling Law § 325(2).”

189. *9 Montague Terrace*, N.Y.L.J. 26, col. 5 (Dec. 19, 2001).

190. *People v. Buddington*, N.Y.L.J. 26 (App. Term, 2d Dept., Dist. 9 & 10 Dec. 19, 2001). The *Buddington* opinion is also reported at 2001 N.Y. Misc. LEXIS 1274.

Appellate Term facilities and the publisher of the *New York Law Journal*.

Diacritical marks used with standard alphabetical characters are becoming increasingly common in everyday printed materials as American business and social dealings increasingly involve nations whose languages use alphabets in which the diacritical marks have significant import. Moreover, as natives of such nations enter the United States in ever increasing numbers, words using alphabetic characters with diacritical marks can be expected to proliferate, both in their use as names of individuals and entities, and more generally in everyday American parlance. Such diacritical marks can be lost as text is transcribed from one medium to another.¹⁹¹

Diacritical markings are vital to the orthography of several languages that use the Roman alphabet.¹⁹² In some languages, the presence or absence of the correct diacritical mark can totally alter the meaning of a word.¹⁹³ But in most instances the omission in judicial opinions of the diacritical marks from proper names is of no material consequence, often with the reader being none the wiser.¹⁹⁴

191. See e.g. Susan McGlamery, et al., *Questions and Answers*, 85 L. Lib. J. 685, 687 (1993) (describing law-librarian concerns with using online databases to research German businesses: "Another linguistic hazard is names of cities. Diacritical marks, especially the umlaut, may be Anglicized, ignored, or represented with an additional 'e.'"); Richard N. Swift, *Book Review*, 82 Am. J. Intl. L. 178, 182 (1988) (reviewing M. J. Peterson, *The General Assembly in World Politics* (Allen & Unwin 1986), and noting that the "elaborate" text-transcription technology used in compiling the book "deprived" Javier Pérez de Cuéllar of his two accents and Dag Hammarskjöld of his umlaut).

192. See e.g. Sascha Brodsky, *Saving Languages: New Mexico Students Learning to Speak Navajo*, Denver Post C2 (Oct. 16, 1994) (indicating that newspapers in the Southwest have often incorrectly spelled words from the Navajo language because the newspapers lack typefaces with the appropriate diacritical marks); see also *Orantes-Hernandez v. Meese*, 685 F. Supp. 1488, 1499 (C.D. Cal. 1988) ("It is in the government's interest that class members meaningfully understand their rights and make knowing, intelligent and voluntary choices. A modification of the present advisal by using simpler language, simpler sentence structure, and accent marks would make it more comprehensible.") (emphasis supplied).

193. See e.g. *U.S. v. Colima-Monge*, 962 F. Supp. 1323, 1328 (D. Or. 1997).

194. E.g. *Church of Lukumi Babalu Aye Inc. v. City of Hialeah*, 508 U.S. 520 (1993). No accent marks appear in the name of the plaintiff as shown in the reporter, nor would they be material to the legal issues of the ruling. No diacritical marks appear in the LEXIS version of the case either. But see Verna C. Sánchez, *Whose God Is It Anyway?: The Supreme Court, the Orishas, and Grandfather Peyote*, 28 Suffolk U. L. Rev. 39, 40 (1994) (rendering name as "Lukumí Babalú Ayé").

Several judicial opinions have had occasion to discuss particular words with diacritical markings, however. The capacity to accommodate and display diacriticals in the text medium of such opinions can consequently be an issue. Thus, in a 1959 trademark dispute regarding "Jockey" brand hosiery and underwear, in which the defendant was enjoined from using the name "Rocké" (with or without the accent mark over the final letter) for its competing products,¹⁹⁵ the capacity of the text medium for diacriticals was relevant in order to fully appreciate the court's discussion of the issue. Though the opinion as reported in the *Federal Supplement* and the *United States Patent Quarterly* does display the accent marks, the LEXIS version does not.¹⁹⁶

In *United States v. Fedorenko*¹⁹⁷ another issue arises. The opinion clarifies, by way of a footnote, that the town referred to in the opinion as "Poelitz" is actually spelled, in German, as "Pölitiz" with the umlaut.¹⁹⁸

In *Häagen-Dazs, Inc. v. Frusen Glädjé, Ltd.*,¹⁹⁹ the court discussed, inter alia, the use of umlauts and accent marks in the names of competing ice cream brands. The *Federal Supplement* and the *United States Patent Quarterly* versions of the opinion not only printed diacritical marks in the names of the products, but also featured the diacritical marks in the case caption and indeed, on the headers of the reporter pages. The LEXIS version of the opinion does not display any letters with umlauts, and indeed, where the *Federal Supplement* and the *United States Patent Quarterly* versions display an umlaut in parentheses, the LEXIS version merely shows two parentheses enclosing a blank space.²⁰⁰

195. *Coopers, Inc. v. Rocky Mt. Textile, Inc.*, 180 F. Supp. 230, 1959 U.S. Dist. LEXIS 2297; 123 U.S.P.Q. (BNA) 423 (D. Colo. 1959).

196. *See id.* The author's observations regarding the LEXIS database are based on the text of LEXIS citations at the time this article was researched and written. If, perchance, the company were to correct these imperfections so that readers of this article would not encounter them, the author would feel vindicated and not embarrassed.

197. 455 F. Supp. 893 (S.D. Fla. 1978).

198. *Id.* at 911, n. 21, 1978 U.S. Dist. LEXIS 16374 at *47 n. 21. While the opinion as published in the *Federal Supplement* in fact shows the umlaut as used in the text on that occasion, the LEXIS version of the opinion does not.

199. 493 F. Supp. 73, 1980 U.S. Dist. LEXIS 11886; 210 U.S.P.Q. 204 (S.D.N.Y. 1980).

200. 1980 U.S. Dist. LEXIS 11886 at *2.

In *Chabert v. Bacquié*,²⁰¹ though diacriticals were of no material relevance to the legal issues at hand, the court took special pains in writing its opinion to set forth an orthographically correct depiction of the defendant's name, noting that

[t]he papers in the record do not spell Bacquié's surname consistently. His French lawyer, however, spells it with an accent acute over the final vowel. We use the diacritic because we assume that his French lawyer is more familiar with the correct spelling of his client's surname.²⁰²

The *Southern Reporter* version of the opinion has indeed followed the court's lead by printing the defendant's name, wherever it appears (including in the page headers), with the accent acute over the final vowel. As with other opinions, the LEXIS version of the appellate court opinion features no diacritical marks, but the LEXIS version reporting the Florida Supreme Court's denying review of the case does feature an apostrophe after the final letter in the defendant's name.²⁰³

Lest one think that the appearance in the various reporters of the diacriticals in *Chabert* and *Häagen-Dazs* is totally a function of technological progress from prior years and volumes, it is noted that in a 1908 New York case, both the official and unofficial reporters spell out the name in contention, "Schütz", complete with the umlaut.²⁰⁴ And diacriticals also appear in the official *United States Reports* version of the 1927 Supreme Court opinion *Compañía General de Tabacos*

201. 694 S.2d 805, 1997 Fla. App. LEXIS 5144 (Fla. App., 4th Dist. 1997).

202. *Id.* at 808 n. 2, 1997 Fla. App. LEXIS 5144 at *4 n. 2.

203. 1997 Fla. LEXIS 1979.

204. *Veit v. Schwob*, 127 A.D. 171, 111 N.Y.S. 286 (2d Dept. 1908). The text of the LEXIS version of *Veit*, however, does not feature an umlaut, *see* 1908 N.Y. App. Div. LEXIS 1914.

Filipinas v. Collector,²⁰⁵ though not in those printed in the usual parallel reporters.²⁰⁶

Currency symbols are, if not indispensable, most highly facilitative to judicial opinions that deal with specific sums of money, including but not limited to those issued in commercial or tax disputes. In *Securities and Exchange Commission v. Credit Bancorp, Ltd.*²⁰⁷ the court points out that “[t]he rates for all relevant foreign currency calculations are one U.S. dollar to approximately 6 French francs, or 1.47 Swiss francs, or .94 euros, or .61 British pounds.” Though the text of the opinion is replete with dollar signs in connection with expressing dollar amounts, the foreign currencies are spelled out without their respective currency symbols.²⁰⁸ As foreign commerce increases, the availability of foreign currency symbols such as “£” or “¥” or “€”²⁰⁹ to the writers and publishers of judicial opinions will surely prove convenient if not pressing.²¹⁰

Other textual characters abound in the legal literature of our day, including but by no means limited to intellectual property symbols and letters and words from alphabets other than the Roman alphabet and its variants. And some reporters of judicial

205. 275 U.S. 87 (1927). The diacriticals appear in the text itself, in the case caption, and in the page headers. As the case is indexed in the Table of Cases to the volume, the word “Compañia” is spelled with a tilde over the “n” but with no acute accent over the “i.” *Id.* at xii. The word “Compañia” is likewise spelled with the tilde but with no acute accent on the same page where the Table of Cases indexes the Court’s denial of certiorari in the several cases involving a party known as Compañia de Navegacion. *Id.* Curiously, no diacriticals appear at all in the Compañia de Navegacion matter itself as officially reported. *See* 275 U.S. 518 (1927).

206. 48 S. Ct. 100, 72 L. Ed. 177.

207. 2000 U.S. Dist. LEXIS 9755 at *48 n. 14 (S.D.N.Y. July 3, 2000).

208. *See id.*, *passim*.

209. The unification of European currency into the euro has created a new currency symbol (“€”) theretofore unknown to the public. Part of the technical challenge of converting to the euro is the use of its currency symbol by the commercial sector and the public, including the availability of the euro symbol in textual software programs. *See e.g.* Attachment SR 98-16 (SUP) to Memo. from Richard Spillenkothen, Dir., Div. of Banking Supervision and Reg., Fed. Reserve Sys., to Federal Reserve Banks and Banking Orgs. Supervised by Fed. Reserve Sys. with Significant E. U. Operations at II(B), available at <<http://www.federalreserve.gov:80/boarddocs/SRLETTERS/1998/SR9816.htm>> (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process).

210. There is, of course, potential for confusion and ambiguity where two different currencies use the same symbol. *See e.g. Matter of Quashie*, N.Y.L.J. 26 (Surr. Ct., Kings Co. Aug. 21, 1997) (determining whether bequests were to be computed in United States dollars or Trinidad dollars, each of which is denoted by the “\$” symbol.).

opinions, most notably Commerce Clearing House (CCH), use the paragraph symbol to label their compilations of cases. A judicial opinion that cites to a source using the paragraph symbol is similarly subject to mutation when transferred from one electronic text format to another.

In addition to its uses as a diacritical mark in languages such as Spanish, the tilde (~) has other functions. It is used in logic notation, for example, and was so used by the Eighth Circuit in its recent *Wells Fargo* opinion.²¹¹ The LEXIS version of the opinion does not employ the actual tilde symbol, but uses in its place the parenthesized word “(tilde).”²¹²

The growth of the Internet has created even more job openings for the tilde. Specifically, it is a part of many Uniform Resource Locators used to access materials on the Internet. The appearance of URLs in judicial opinions has clearly been on the increase,²¹³ and such proliferation can be expected to continue as increasing numbers of Internet-literate individuals join the ranks of the court bureaucracies.²¹⁴ As any Internet user will almost inevitably discover early on, a URL must be textually perfect in order to locate the material sought; a minor textual variation or typographical error will render the URL useless.

Where the character set of a text medium does not include the tilde, a URL containing a tilde will be distorted, and incapable of

211. See *Wells Fargo & Co. v. Commr.*, 224 F.3d 874, 882 (8th Cir. 2000).

212. 2000 U.S. App. LEXIS 22201 at *19-*21.

213. On September 3, 1998, in connection with a separate research project, the author made certain searches of the LEXIS database using the keyword “http!” and found, *inter alia*, two opinions of the United States Supreme Court that made citation to URLs. See *Denver Area Educ. Telcommuns. Consortium, Inc. v. Federal Commun. Comm.*, 518 U.S. 727 (1996); *Muscarello v. U.S.*, 524 U.S. 125 (1998). In subsequent research on February 11, 2001, the same search of United States Supreme Court opinions yielded eleven hits. The author’s research of September 3, 1998, similarly achieved fifty-two hits from a search of the LEXIS Supreme Court Briefs database, compared to 296 hits from the February 11, 2001, search. It is obvious that URL citations are being brought to the attention of the United States Supreme Court with increasing frequency, for similar keyword searches of other LEXIS databases have likewise shown marked increases in hits from September 1998 to February 2001.

214. See e.g. *Carter v. Metro North Assocs.*, N.Y.L.J. 29 n. 1 (Sup. Ct., N.Y. Co. Apr. 27, 1998) (acknowledging assistance of a law-student intern in preparing the opinion). The lower court opinion in *Carter*, apparently the first New York opinion to cite a URL, is included in neither the official *New York Miscellaneous Reports*, the *New York Supplement*, nor the LEXIS New York State case-law database. See § V(C) below for a discussion of the stability of opinions in cyberspace.

accessing the Internet page it purports to locate. The various text media in which the Second Circuit's *Martinelli* opinion²¹⁵ was incarnated illustrate quite well the issues posed by an Internet citation containing a tilde. In *Martinelli*, the Court notes in the first footnote to the opinion that

'Bret Maverick' (played by Jack Kelly), and his brother 'Bart' (James Garner), were characters in a popular ABC television series that originally aired between 1957 and 1962. See Alan Morton, *Maverick: An Episode Guide*, www.xnet.com/~djk/Maverick_2.shtml (1999).²¹⁶

The version of the *Martinelli* opinion appearing in the *Federal Reporter* and the *New York Law Journal* gives the URL as www.xnet.com/~djk/Maverick_2.shtml (1999).²¹⁷ The version in the LEXIS database does not use the tilde symbol, but substitutes for it the parenthesized word "(tilde)" and thus renders the URL as "[www.xnet.com/\(tilde\)djk/Maverick_2.shtml](http://www.xnet.com/(tilde)djk/Maverick_2.shtml)" [sic].²¹⁸ In the *New York Law Journal* version of the opinion, as compiled on the LEXIS-NEXIS database of articles from that publication, the tilde is omitted completely, and the URL cited in the opinion thus appears as "www.xnet.com/djk/Maverick2.shtml."²¹⁹ The mutant URLs in the various text media

215. *Martinelli v. Bridgeport Roman Catholic Diocesan Corp.*, 196 F.3d 409, 1999 U.S. App. LEXIS 29610, N.Y.L.J. 25 ("Decision of the Day" Nov. 16, 1999) (2d Cir. 1999).

216. *Id.* at 414 n. 1, 1999 U.S. App. LEXIS 29610 at *4, N.Y.L.J. p. 31 (2d Cir. Nov. 16, 1999). Curiously, none of the footnotes to the case appear in the *Martinelli* opinion as posted at the semi-official Second Circuit websites operated by the Touro Law School and Pace University School of Law. See <http://www.tourolaw.edu/2ndCircuit/November99/98-7876.html> (accessed Dec. 9, 2002; no copy available); <http://csmail.law.pace.edu/lawlib/legal/us-legal/judiciary/second-circuit/test3/98-7876.opn.html> (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process). By the time this article was written, the *Maverick: An Episode Guide* website was no longer at the URL cited in the *Martinelli* opinion, but had moved to and was available at another website. See <http://www.epguides.com/Maverick/guide.shtml> (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process).

217. *Martinelli*, 196 F.3d at 414, N.Y.L.J. 31 (Nov. 16, 1999). The *New York Law Journal* version of the decision was once also available in the *New York Law Journal's* online archive at <http://www.nylj.com/decisions/99/11/11699bd.htm>, but that archive no longer exists. The current archive, which extends back over only six months, is available at <http://www4.law.com/ny/courts>.

218. 1999 U.S. App. LEXIS 29610 at *4. The word "Maverick" in the URL is misspelled in the U.S. App. LEXIS version, thus rendering the URL all the more inutile unless the observant user takes the trouble to fix the typographical error.

219. The LEXIS version of the *New York Law Journal* case report is accessible by searching "Maverick and date is (Nov. 1999)" in the *New York Law Journal* file of the

are, of course, ineffective in finding the source intended to be referenced.

Accordingly, textual characters can interpose text-media issues not only into the process of searching within the texts of judicial opinions, but also into the process of identifying and locating the texts of the opinions in the first instance.

IV. TIMELINESS OF TEXTUAL AVAILABILITY

The timeliness of judicial opinions is relevant to both the time involved in accessing the text medium, and the time involved in putting the opinion into its text medium to begin with. In the colonial and formative eras, the accessibility of the printed and bound volumes was a pervasive problem that induced, in no small measure, the separate development of American law from that of England.²²⁰

But the problems of physically transporting the books through the commercial channels from bindery to personal, collective, or institutional law library often paled in comparison to the efforts involved in the processes of bringing the rendered opinion to the printing press in the first place. Such issues were apparent in the judicial opinions of the colonial and formative eras, and beyond.

Artifacts of the timeliness of availability abound in the legal literature. The following quotation, from the thirty-second volume of *Howard's New York Practice Reports*, is an exemplar of the timeliness issues that affected the legal system:

In *Floyd agt. Blake* (19 *How. Pr. R.* 542), decided at September special term, in 1860, the action was for assault and battery, Justice James upheld an attachment, as a provisioal [sic] remedy. . . .

The plaintiff's counsel cited the following cases: *Gordon agt. Gaffey* (11 *Abb. p.* 1). The action was for damages arising from the burning of the plaintiff's barn and its contents. Hogeboom, J., at March special term, 1859, decided that the attachment was unauthorized, and set it aside. . . . It will be seen that this decision was more than a

Legal News folder of LEXIS's New York database.

220. See nn. 73-77, *supra*, and accompanying text.

year earlier than that of *Floyd* agt. *Blake*, though it is not probable that Justice James was aware of it.²²¹

Curiously, the *Floyd v. Blake* case referred to was not only reported in the nineteenth volume of *Howard's New York Practice Reports*, but was also reported in the very same volume of the *Abbott's Practice Reports* as was *Gordon v. Gaffey*.²²²

The classic opinion in *Hamer v. Sidway*,²²³ long known to American law students from their first-year contracts class as the "clean-living nephew case," cites "Talbot v. Stemmons (a Kentucky case not yet reported)."²²⁴ *Hamer* was decided on April 14, 1891, and *Talbot*, which had been decided on October 21, 1889, was subsequently reported at 89 Ky. 222 and 12 S.W. 297 (1889).²²⁵ Obviously, the time lag inherent in the process of publishing the official reporters presented challenges to the late nineteenth century bench and bar, whose members nevertheless found ways to access at least some judicial opinions before the usual printed reporter books emerged from the presses.

Indeed, several enterprising printers took advantage of that time lag, making it their business to print judicial opinions of cases whose subject matter or circumstances held promise of public interest, and therefore, a demand for their printed wares. In 1825, Henry C. Sleight printed the Chancellor's Opinion in a municipal land dispute in *Town of North-Hempstead v. Town of Hempstead, New York*, which had been handed down by the chancellor on December 27, 1824.²²⁶ It would not be until 1827, approximately two years later, that the opinion would appear in the first and only volume of *Hopkins Chancery Reports*.²²⁷ Likewise, the opinion of the Illinois Supreme Court in a well-watched land dispute in that state was promptly published by a Chicago printer named Edward Rudd in 1837.²²⁸

221. *Saddlesvene v. Arms*, 32 How. Pr. 280, 281 (N.Y. Sup. Ct., Erie Co. Nov. 1866).

222. *Floyd v. Blake*, 19 How. Pr. R. 542, 11 Abb. Pr. 349 (N.Y. Sup. Ct., Saratoga Special Term 1860).

223. *Hamer v. Sidway*, 27 N.E. 256, 257 (N.Y. 1891).

224. *Hamer*, 27 N.E. at 257.

225. *Talbot v. Stemmons' Exec.*, 12 S.W. 297 (Ky. 1889).

226. Marguerite V. Doggett, *Long Island Printing 1791-1830* at 139 (Long Island Historical Socy. 1979).

227. *Town of North-Hempstead v. Town of Hempstead*, 1 Hopk. Ch. 288 (N.Y. Ch., 1824).

228. Cecil K. Byrd, *A Bibliography of Illinois Imprints 1814-58* at 84-85 (U. Chicago

During the 1930s the Department of Justice, apparently concerned with the time lag in the decision-reporting process, took the initiative to timely inform Department attorneys and the federal bench of recent federal procedure opinions by providing them with advance mimeograph copies of the decisions.²²⁹ And mimeograph copies of opinions continued to be used to overcome the time lags in opinion reporting well after the 1930s. In *United States v. FMC Corp.*,²³⁰ a Supreme Court opinion that, ironically, is itself not officially reported, Justice Goldberg used a mimeograph opinion dated June 27, 1963, from the district court in propounding his opinion of August 9, 1963,²³¹ noting that “[t]he District Court’s memorandum opinion and findings [were] as yet unreported.”²³²

The normal time period from the rendering of the decision to the appearance in the printed sources can be too long for certain purposes. *Tax Notes*, a publication whose niche was and is to provide timely information to its subscribers regarding tax law developments, was often unable to obtain copies of judicial opinions prior to the critical appeal deadline.²³³ The publisher of *Tax Notes* found a new approach to obtaining the opinions: It successfully argued that the Department of Justice, whose personnel received timely copies of all court opinions by virtue of its status as a necessary party to all of the tax litigation cases,

Press 1966). The Illinois Supreme Court decision would later be officially reported, and subsequently reversed by the United States Supreme Court. *Jackson v. Wilcox*, 2 Ill. 344 (1837), *rev'd* 38 U.S. 498 (1839).

229. See *U.S. v. Aluminum Co. of Am.*, 27 F. Supp. 820, 823 (S.D.N.Y. 1939) (“The Department of Justice has established the practice of compiling and sending to district judges mimeographed copies of all opinions it could obtain by Federal courts throughout the country having a bearing on the new rules. I have examined all which have come into my hands.”).

230. *U.S. v. FMC Corp.*, 1963 U.S. LEXIS 2449 (Aug. 9, 1963).

231. *Id.* at *9 n. 14.

232. *Id.* at *2 n. 1. The mimeograph opinion relied upon by Justice Goldberg would later be reported at 218 F. Supp. 817, 1963 U.S. Dist. LEXIS 9994, and 1963 Trade Cas. (CCH) ¶ 70,826 (N.D. Cal. 1963). The “finding” referred to by Justice Goldberg is not set forth in the *Federal Supplement* or LEXIS versions of the District Court opinion, but is in fact printed in the *Trade Cases* version.

233. See *Tax Analysts*, 492 U.S. at 139-40.

was required to disclose copies under the Freedom of Information Act because they were official documents.²³⁴

Using technology unavailable in the 1890s, one enterprising criminal defense attorney in the 1990s, knowledgeable of current events in his specialty, arranged for an opinion delivered two days earlier and still unreported to be faxed to the trial judge while the jury was deliberating the charges against his client.²³⁵

As the twenty-first century begins, more and more judicial opinions are being posted on the Internet, thus giving an accessibility unthinkable to judges and attorneys of yore.²³⁶ With the rapid availability facilitated by the Internet posting of opinions has come concern that all interested parties to the litigation have parity of access to the opinion,²³⁷ concerns expressed by Henry Twyford and John Place when they edited *Popham's Reports* in the middle of the seventeenth century.²³⁸

Even in this age of almost instantaneous delivery of judicial opinions, the timing of a decision can be somewhat embarrassing, particularly if the opinion is one of an appellate court that overrules a lower court decision upon which one hangs one's hat. The *New York Law Journal* of May 25, 2001, featured its regular "Entertainment Law" column by Michael I.

234. *Id.* In this day and age when most federal courts timely post on the Internet all of their opinions, officially reported and otherwise, many if not most of the practical issues faced in *Tax Analysts* are effectively moot.

235. *Grismore v. State*, 841 S.W.2d 111, 113 (Tex. App. 1992). Inasmuch as the faxed appellate opinion, *Geesa v. State*, 820 S.W.2d 154 (Tex. Crim. App. 1991), which by its terms applied to "all cases tried hereafter," was decided on November 6, 1991, the very day on which the trial for Grismore had begun, the *Geesa* opinion was found to be inapplicable to the *Grismore* case.

236. See e.g. F. Dennis Hale, *Court Decisions as Informational Sources for Journalists: How Journalists can Better Cover Appellate Decisions*, 23 UALR L. Rev. 111, 113-14 (2000); Lawrence Duncan MacLachlan, *Gandy Dancers on the Web: How the Internet Has Raised the Bar on Lawyers' Professional Responsibility to Research and Know the Law*, 13 Geo. J. Legal Ethics 607, 631-33 (2000); Deborah M. Keene & William Morse, *Web Progresses as Source Of Primary Legal Material*, Natl. L. J. B7 (July 22, 1996).

237. See e.g. Supreme Court of New Jersey, *Notice to the Bar: Internet Posting of Trial Court Decisions* (June 27, 2001), available at <<http://www.judiciary.state.nj.us/notices/n010627a.htm>> ("[A]ll parties should be made aware, at approximately the same time and in the same way, that the decision will be available on the Internet.") (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process).

238. See n. 81, *supra*, and accompanying text. Twyford and Place, being booksellers to the legal profession, *id.*, had good reason to be concerned about their customers' need for timely access to judicial opinions.

Rudell, which sported the headline “‘The Wind Done Gone’ Held to Infringe on ‘Gone with the Wind.’”²³⁹ On that very date, the Eleventh Circuit reversed the district court ruling that was the basis for Rudell’s article.²⁴⁰

V. RELIABILITY OF THE INFORMATION

A. Textual accuracy

More than six centuries ago, the Arab historian Ibn Khaldûn recognized that legal systems are jeopardized when those who prepare the law books place a low priority on the accuracy of the letters and words of their texts.²⁴¹ The rabbis, most concerned about the accuracy of hand-scribed Torah scroll texts, had already established requirements that addressed not only the physical copying process but also the status mentis of the copyist.²⁴² Throughout all of the advances in text-media technology since before the colonial period, textual accuracy of judicial opinions has consistently been an issue in one form or another.

In colonial Virginia, where printing presses were officially prohibited,²⁴³ the copying of judicial opinions was in many instances accomplished by hand-scribe technologies that hardly

239. Michael I. Rudell, “*The Wind Done Gone*” Held to Infringe on “*Gone with the Wind*,” N.Y.L.J. 3 (May 25, 2001).

240. *Suntrust Bank v. Houghton Mifflin Co.*, 252 F.3d 1165 (11th Cir. 2001).

241. Ibn Khaldûn, *Muqaddimah* vol. 2, ch. 4, § 30, at 393-94 (Franz Rosenthal, trans., Pantheon Books 1958) (pagination in original Arabic work: vol. 2, 351-52) (circa 1377).

242. Maimonides, *Mishneh Torah: Sefer Torah*, ch. 10, ¶ 1 at 58 (Philip Birnbaum, trans., Hebrew Publ. Co. 1967) (A Torah scroll is disqualified if, inter alia, “the scribe wrote the names of God without intent.”) The stringent quality control imposed over the millennia upon the copying of Torah scrolls has resulted in a textual fidelity that stands in stark contrast to the textual mutation rates commonly found in other writings, hand-scribed and otherwise. See Dovid Lichtman, *The Accuracy of Our Written Torah*, in Harold Gans, *A Primer on the Torah Codes Controversy for Laymen*, (Aish HaTorah Discovery Seminars 1999), available at <<http://www.c-bh.com/original.html>> (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process).

243. Isaiah Thomas, *The History of Printing in America* vol. 1, 17, 330-32 (Reprint, Burt Franklin, N.Y., n.d. [prob. circa 1967]) (2d ed., 1874); Douglas C. McMurtrie, *A History of Printing in the United States* vol. 2, 276-80 (R. R. Bowker Co. 1936).

differed from those known to Ibn Khaldûn;²⁴⁴ varying individual specimens of the same opinions were not unusual.²⁴⁵

The printing press eliminated the textual accuracy problems as between individual specimens. All copies made by the press contained the same text, and were as accurate (or inaccurate) as the original printing plates. But the process of getting the opinion to the plates is not necessarily a perfect one, so textual accuracy remains an issue, notwithstanding the ability of a printing press or similar engine to faithfully produce multiple copies of the same text. The deliberation process in a tribunal such as the United States Supreme Court can entail the propounding and circulation of several versions of draft opinions among the justices and their staffs for editorial revision and redaction.²⁴⁶ Indeed, concern over the integrity of the reporting process was manifest in a resolution successfully introduced by Congressman Joseph R. Ingersoll in 1836, which instructed the House Judiciary Committee “to inquire whether the decisions of the Supreme Court [were] reported with accuracy and fidelity.”²⁴⁷

Where an opinion is reported in more than one publication there can be variation between and among the different versions. Some textual variations of little or no legal consequence result from differences in the editorial styles and preferences of the reporters. For example, in naming cases, various conjunctions (and abbreviations thereof) have been used according to the reporter’s predilection, such as “versus,” “vs.,” “v.,”

244. See Herman Melville, *Bartleby the Scrivener* (c. 1853), in *The Writings of Herman Melville* vol. 9, 13 (Harrison Hayford, et al., eds., Northwestern U. Press 1987):

It is, of course, an indispensable part of a scrivener’s business to verify the accuracy of his copy, word by word. Where there are two or more scriveners in an office, they assist each other in this examination, one reading from the copy, the other holding the original. It is a very dull, wearisome, and lethargic affair.

Id. at 20. See also *Nashua Savings Bank v. Anglo-Am. Land, Mortg. & Agency Co.*, 189 U.S. 221, 229 (1903) (contrasting an official printed copy with “a copy written and compared by an ordinary scrivener”) (emphasis added).

245. See e.g. *Virginia Colonial Decisions: The Reports by Sir John Randolph and Edward Barradall of the General Court of Virginia, 1728-1741* vol. 1, 1-22 (R. T. Barton, ed., Boston Book Co. 1909).

246. See e.g. Bernard Schwartz, *The Unpublished Opinions of the Burger Court 3-4* (Oxford U. Press 1988). The term “unpublished” as used in the title of Schwartz’s book refers to draft opinions that were never issued, not to the now-common sort of “unpublished” opinions discussed above in note 4.

247. *Cong. Globe*, 24th Cong., 1st Sess. 383 (Apr. 21, 1836).

“against,” “agt.,” “a.,” and the like.²⁴⁸ But the differences can be of greater consequence than such minor preferences. As observed by one editor,

[I]n the preparation of the cases for publication, the fact soon developed that the great majority of them had been published in more than one place, and in very many instances some one of these several reports of the same case is much more complete than any of the others, while one of the incomplete reports may contain important matter not to be found in the best report of the same case.²⁴⁹

Sometimes where the publication of a judicial opinion is somehow textually imperfect, the opinion will be republished by the publisher or the court. A Kings County Surrogate’s Court decision fixing attorney fees that was published in the *New York Law Journal* was republished approximately three weeks later, the text of the first publication apparently being incomplete.²⁵⁰ And when the short deadlines inherent to producing a daily newspaper-type publication spawn disorganization, judicial opinions in such publications have been known to be republished verbatim.²⁵¹

Textual accuracy can be an issue even where the text is purveyed to the public by an official source. The Virginia court opinions posted on the Internet by that state’s judicial system are

248. Compare *Floyd agt. Blake*, 19 *How. Pr. R.* 542 (N.Y. Sup. Ct., Saratoga Spec. Term, Sept. 1860) (the opinion and all precedential cases cited within the opinion use the conjunctive “agt.”) with *Floyd a. Blake*, 11 *Abb. Pr.* 349 (parallel citation: the opinion and the precedential case cited within the opinion use the conjunctive “a.”). The style of *Howard’s New York Practice Reports* was, at least in the body of the text, to use italic type for the names of the parties and ordinary Roman type for the conjunctive “agt.” The style of *Abbott’s Practice Reports*, on the other hand, uses ordinary Roman type for the names of the parties and italic type for the conjunctive “a.”

249. *Preface*, at 1 *Fed. Cas.* iv (1894).

250. Compare *Matter of Kaplan*, N.Y.L.J. 29 (Surr. Ct., Kings Co. Apr. 21, 2000) with *Dorothy Kaplan* [sic], N.Y.L.J. 32 (Surr. Ct., Kings Co. May 15, 2000) (showing that opinion as initially published fixed the fee of one law firm involved in the estate, while opinion as republished fixed the fees for the same law firm and another law firm as well, and that inadvertently, an obvious but minor error in captioning the opinion upon the second publication was made).

251. E.g. *Est. of Nedlin*, N.Y.L.J. 31 (Surr. Ct., Bronx Co. Jan. 11, 2000), republished verbatim N.Y.L.J. 33 (Jan. 18, 2000) (col. 4), republished verbatim N.Y.L.J.33 (Jan. 18, 2000) (col. 5), republished verbatim N.Y.L.J. 28 (Jan. 21, 2000). The opinion thus appeared in the *New York Law Journal* four times within a two-week period, including twice on the same day on the same page.

available in two formats, text format and word processed format.²⁵² The opinions in text format “are not the official version of the opinions (because they do not contain footnotes).”²⁵³ The official opinions, which do contain footnotes, are also available for downloading.

The transposition of text from one medium to another can cause textual mutations even where the medium involved is electronic and not subject to the human error of hand-scribe copying. In addition to changes in non-alphanumeric characters from one text medium to the other,²⁵⁴ there are other opportunities for textual mutation. In *Usery v. Mohs Realty Corp.*,²⁵⁵ one of the footnotes, perfectly legible as it appears in the *Federal Supplement*,²⁵⁶ was somehow illegible to the compilers of the LEXIS version of the opinion.²⁵⁷

The current state of the text-media art has, in a sense, come full circle from the text-media technology of Ibn Khaldûn’s day. Prior to the printing press, each hand-scribed book or other literary work was a unique creation, subject to textual variations from one specimen to the next. With the advent of the printing press, the individual books from the entire press run became textually identical. Likewise, photocopying processes, xerographic or otherwise, faithfully and accurately reproduce the text of the original.²⁵⁸ But modern on-demand printing technology now allows, for good or evil purposes, textual variations between press runs of the same edition,²⁵⁹ and indeed, variations of individual books within a single production run.

252. Available at <<http://www.courts.state.va.us/opin.htm>> (accessed Dec. 9, 2002; copy on file with Journal of Appellate Practice and Process).

253. *Id.*

254. See section III(C)(4) above for a discussion of non-alphanumeric characters.

255. 424 F. Supp. 20, 1976 U.S. Dist. LEXIS 12288 (W.D. Wisc. 1976).

256. 424 F. Supp. at 25 n. 3.

257. See 1976 U.S. Dist. LEXIS 12288, n. 3 at *9. The author’s accessions of the LEXIS database at various times between June 2000 and May 2002 indicate that the LEXIS version reads “n3 Defendant Mohs asserts that these items are not relevant since they predate 1972 when GNH was formed or were not circulated to the general public. The former fact can cut against the . [ILLEGIBLE TEXT].”

258. See e.g. *Rachel v. Commonwealth*, 523 S.W.2d 395, 401 (Ky. 1975) (admitting thermofax copies and noting that “there is no chance of a mistake upon the part of the scrivener in copying it, and exact replicas of handwriting and figures are produced”).

259. Compare Kenneth W. Clarkson, et al., *West’s Business Law* 636, 640-41 (6th ed., 1st printing West Publ. 1995) with Kenneth W. Clarkson, et al., *West’s Business Law* 636,

If inaccurate judicial opinion texts can be produced through carelessness or technical accident, then a purported judicial opinion can certainly be all the more deviant if produced through willful manipulation of the text. In other words, technology can now facilitate the ready production of multiple copies of a genuine or purported judicial opinion with intentionally engineered textual differences from one specimen to the next.

Moreover, documents purporting to be judicial judgments and opinions can be forged where none in fact exist. In a rather egregious example, an attorney concocted a three-page document by photocopying the first page with the case caption and the third page with a specimen of the judge's signature, and interleaved between the two a totally fictitious second page that required the perfidious attorney's clients to pay to him personally an amount supposedly intended to satisfy a non-existent judgment against them.²⁶⁰ Other attorneys have forged judicial orders and opinions with the motive of defrauding creditors,²⁶¹ and concealing their legal malpractice and other omissions from their clients.²⁶² Judgments of divorce have been forged, by attorneys²⁶³ and by a court clerk supplementing his income through bribery.²⁶⁴ It reportedly is not unusual for West Publishing to receive contrived judicial opinions.²⁶⁵

Where opinions are not published in an accessible, stable and reliable medium, the potential for manipulation is enhanced.

640-41 (6th ed., 2d printing West Publ. 1995) (showing that dollar figures in Chapter 33 were revised from first printing to second printing of sixth edition to reflect changes in exemptions, priorities and exceptions to discharge made to 11 U.S.C. §§ 507, 522, 523 by the Bankruptcy Reform Act of 1994). There are obvious potential pitfalls where textual differences exist within different specimens of the same edition of a work, and the fact that the publisher of Clarkson's text is the West Group, upon which the American bench and bar depend for the provision of texts of judicial opinions (and other legal materials) with faithful consistency from one specimen to the next, is grounds for at least some degree of concern.

260. *U.S. v. London*, 714 F.2d 1558, 1560 (11th Cir. 1983), see also *Matter of London*, 294 S.E.2d 524 (Ga. 1982) (describing related disciplinary proceeding).

261. *U.S. v. Davis*, 26 Fed. Appx. 100 (4th Cir. 2001).

262. *U.S. v. Cowan*, 116 F.3d 1360 (10th Cir. 1997); *U.S. v. Barber*, 39 F.3d 285 (10th Cir. 1994); *U.S. v. Dyer*, 546 F.2d 1313 (7th Cir. 1976).

263. *Matter of Lyons*, 678 N.Y.S.2d 742 (App. Div., 2d Dept. 1998).

264. See Daniel Wise, *Probe Into Court Clerk Bribery Scandal Continues*, N.Y.L.J. 1 (June 21, 1999).

265. See *Old April Fool's Opinion Ends Up as Case Law*, Ind. Law. 22 (Apr. 17, 1996).

It requires no great leap of the imagination to envision a nefarious lawyer (or pro-se litigant) manipulating the documents so that the trial judge's copy of a brief cites the unreported case to one manipulated website, while the other copies of the document link to other websites. The chances of a fraud being perpetrated upon the court would be all the greater if the manipulator has inside cooperation from a confederate employed by the court or by the publisher of the judicial opinion.

And the same modern technologies that facilitate the accurate copying of verbiage have also been known to facilitate the bypass of judicial reasoning processes. In *Warden v. McLelland*,²⁶⁶ the Third Circuit, having previously remanded the case in order for the district court judge to provide the legal reasoning for his judgment, was not impressed by the resulting opinion "that was a minimally modified version of one of defendants' legal memoranda the District Court had previously listed as setting forth the legal authority for its prior order."²⁶⁷

In *Warden*, then, the district court effectively used a party's legal memorandum as precedent. From a text-media technology perspective, the judicial handling of *Warden* thus raises concerns that implicate the use of precedent in courts. Has the convenience with which the textual verbiage may be manipulated and incorporated into a judicial opinion become more salient than the legal reasoning behind the text? Will courts, ever under pressure to expedite cases, skimp on setting forth the reasons for their decisions?²⁶⁸ If so, then how persuasive would decisions by such courts be to other tribunals?

B. Type Fonts

Fonts can entail text-media issues relating to readability, accessibility and accuracy of information.

There are various reasons for the text of a judicial opinion to make use of diverse fonts. First of all, there is the aesthetic

266. 288 F.3d 105 (3d Cir. 2002).

267. *Id.* at 110.

268. *Cf. Kerner v. Rexrode*, 44 Ches. Co. Rep. 406 (Com. Pleas, Chester Co., Pa. 1996) (expressing "relief" on part of the judge that both parties had appealed, where, on account of a case overload, the judge was unable to find and consult his notes about the testimony).

consideration of imparting readability to the text. In light of the fact that many if not most typefaces have letters and other characters of variable width, special care must be taken to justify the spacing and alignment of tabular data when such is recited in the text of the opinion.

Typefaces in which each character is of uniform width lend themselves to setting forth tabular data within an opinion with far less complications than do typefaces of varying character width. Accordingly, LEXIS, which normally propounds its judicial opinions in Times New Roman, a typeface of variable character width, frequently uses Courier New, a uniform-width typeface, for portions of the judicial opinions that entail tabular data.²⁶⁹

Another use for different fonts in an opinion is where there is emphasis in a direct quotation, whether in the original source of the quotation or supplied by the court. In that regard, the use of fonts for emphasis can vary from one text medium to another. Italic fonts were generally not a choice with the typewriter, so the practice developed over the years to backspace and then use the underscore key to underline the verbiage where emphasis was desired, and at such time as the work was typeset the underscored words would be set in italic type.²⁷⁰

The font used for emphasis may be subject to variation as a judicial opinion is encoded from one particular text medium to another. In the Tax Court case of *Krugman v. Commissioner*,²⁷¹ for example, a relevant document emphasized the phrase “plus all penalties and interest provided by law.”²⁷² The original Tax Court opinion document emphasized the phrase by underscored capital

269. See e.g. *Defenders of the Christian Faith, Inc. v. Horn*, 1953 Kan. LEXIS 289 at *22 (Kan. 1953) (also reported at 174 Kan. 40, 254 P.2d 830); *Webb v. Commr.*, 1996 Tax Ct. Memo LEXIS (T.C. Memo 1996-550, 1996) 572 at *2-*3 (also reported at T.C. Memo 1996-550, 72 T.C.M. (CCH) 1522).

270. See e.g. *Bluebook*, supra n. 172, at 11; *Chicago Manual of Style* 72 (14th ed. U. Chicago Press 1993). Word processing programs have now made italic font a simple menu option that can be accomplished as easily as underscoring (and indeed, both italic and underscore options can be done simultaneously). Accordingly, despite the *Bluebook*'s fastidious ties to tradition, at least one commentator has advocated using italics even in legal memoranda and other court documents. See René B. DeLaup, *Typography and Legal Briefs*, La. Bar J. 71 (June 1996) (“Underlining diminishes readability; use italics.”) (emphases original).

271. 112 T.C. 230 (1999).

272. *Id.* at 232, 1999 U.S. Tax Ct. LEXIS 19 at *8.

letters,²⁷³ but the versions in the official Tax Court Reporter were all capital letters without underscoring.²⁷⁴

In another Tax Court case, *Borgatello*,²⁷⁵ the original opinion quotes from a document in evidence and indicates some emphasis in the original, but neither the original opinion, the CCH service, nor the LEXIS version have put any emphasis on any of the words in the quote.²⁷⁶

In the *Desnoyers* case,²⁷⁷ the court quotes and adds emphasis to a prior opinion by a higher court:

[T]he “border search” exception to the requirement of probable cause accorded to customs . . . [citations omitted] is a limited power. Its purpose is to permit such officials to search for contraband coming *into* the country without payment of duty or in contravention of statutory prohibitions. It does not extend to searches of baggage going *out* of the country upon which no duty is payable and on which no prohibitions are placed. [Citations omitted; emphasis in original.] As these cases make clear, the limited exception was granted to customs officials for a particular purpose; *it may not be used to circumvent the constitutional requirement of probable cause placed upon police officers.*²⁷⁸

Thus, the *Desnoyers* opinion has a quotation that features both emphasis from the original and emphasis added. While the official *New York Reports*, the unofficial West’s *New York Supplement*, and the LEXIS database all use italics for the original

273. See <<http://www.ustaxcourt.gov/InOpHistoric/KRUGMAN2.TC.WPD.pdf>> at 5 (accessed Dec. 10, 2002; copy on file with Journal of Appellate Practice and Process), available by using the key-word search engine to search Krugman on the “Historic Opinions” page of the Tax Court’s website at <<http://www.ustaxcourt.gov>>.

274. 112 T.C. at 232, 1999 U.S. Tax Ct. LEXIS 19 at *8.

275. *Est. of Borgatello v. Commr.*, T.C. Memo 2000-264, 2000 Tax Ct. Memo LEXIS 309 at *5-*6, 80 T.C.M. (CCH) 260, 262 (2000); see also <<http://www.ustaxcourt.gov/InOpHistoric/Borgatello.TCM.WPD.pdf>> (original opinion) (accessed Dec. 10, 2002; copy on file with Journal of Appellate Practice and Process).

276. *Id.*, original opinion at 6, 2000 Tax Ct. Memo LEXIS 309 at *5-*6, 80 T.C.M. (CCH) 260, 262.

277. *People v. Desnoyers*, 705 N.Y.S.2d 851 (Sup. Ct., N.Y. Co. 2000).

278. 705 N.Y.S.2d at 856 (adding emphasis to last-quoted phrase). The quoted passage is from *People v. Esposito*, 37 N.Y.2d 156, 159-60, 332 N.E.2d 863, 865-66, 371 N.Y.S.2d 681, 1975 N.Y. LEXIS 1940 at *8-*9, in which the emphasized words “into” and “out” are italicized in the official *New York State Reports*, in the unofficial West’s *New York Supplement* and *Northeastern Reporter*, and in the LEXIS version.

and added emphasis,²⁷⁹ the version appearing in the printed edition of the *New York Law Journal* italicizes the added emphasis but does not in any way typographically distinguish the words “into” and “out,” which were emphasized in the original quotation.²⁸⁰

We thus see that the way in which the various publishers and text media use diverse fonting in order to emphasize words in a judicial opinion is subject to diversity and inconsistency, and, as demonstrated by the *Borgatello* case, that even a court wishing to emphasize particular words can be remiss in ensuring that such emphasis is apparent in the opinion as it is released.

A font-related issue that impacts upon both accuracy and accessibility is that certain characters in some fonts resemble other characters in the same font, even to the point of indistinguishability. The majuscule letter “O” is easily confused with the numeral “0” in fonts such as QuickType Mono. In Times New Roman the numeral “1” is indistinguishable from the miniscule letter L (“l”), and in the Arial and Century Gothic fonts the majuscule letter “I” is indistinguishable from the miniscule (“i”). Potential for confusion resulting from the similarity of characters is obvious in situations where a particular alphanumeric designation is critical, such as a serial number²⁸¹ or a URL.²⁸²

C. Textual stability of the opinion

Under normal circumstances, the reader of a printed judicial opinion can be fully confident that the text upon the paper being read is the same text that was graphically applied to

279. 37 N.Y.2d at 155-160, 371 N.Y.S.2d at 681, 1975 N.Y. LEXIS at *8-*9.

280. N.Y.L.J. 27 (Mar. 6, 2000).

281. No doubt as a result of lessons learned from numerous past confusions between the numeral “1” and the letter “l,” and between the numeral “0” and the letter “O,” whether in hand-scribings or printed fonts, the Defense Federal Acquisition Regulations Supplement prohibits, with certain exceptions, the use of the letters “l” and “O” in assigning alphanumeric procurement instrument identification numbers to Department of Defense contract documents. See 48 C.F.R. § 204.7002(a)(2). See also *U.S. v. Moldofsky*, 2002 U.S. Dist. LEXIS 19853 (S.D.N.Y. 2002) (defendant posted to an Internet message board using the screen names “hot_like_wasabe” and “floydian_us,” substituting in each instance the arabic numeral “1” for the miniscule “l” in order to make his postings appear to be from the legitimate users of the screen names “hot_like_wasabe” and “floydian_us”).

282. See notes 213 through 219 above, and the accompanying text, for a discussion of URLs in locating judicial opinions and other materials.

the paper when the printed specimen was produced. Ink-on-paper text media provide for textual stability of the specimen; and, when printing-press technology is used to apply the ink to the paper, there is textual stability from one specimen of the press run to the next. Accordingly, the quotation cited by the attorney in the brief, taken from a reporter in the lawyer's library, can be verified by the judge by consulting the reporter cited with no doubt that the quotation from the opinion read out of the reporter in chambers is textually identical to the opinion read by counsel and cited in the brief.

But concerns must be raised where the text-media technology affords less textual stability than the familiar ink on paper. In Pennsylvania, for example, the line was long ago drawn between probating wills written on paper with graphite pencil and probating wills written with chalk on a slate.²⁸³ Some of the media being used at the beginning of the twenty-first century for carrying judicial opinions, though much more complex than writing with chalk on slate, have comparable textual stability issues.

283. Compare *Myers v. Vanderbelt*, 84 Pa. 510 (1877) (upholding probate of a will written and signed in lead pencil) with *Reed v. Woodward*, 11 Phila. 541 (Com. Pleas, Chester Co. 1875) (denying probate of an instrument written in chalk on slate). The Supreme Court of Pennsylvania has even upheld the probate of a will written in pencil where the erasable qualities of that text medium were utilized. See *Est. of Gaston*, 41 A. 529, 529 (Pa. 1898) (admitting to probate a will "written in lead pencil on the back of a printed notice to consumers from a gas company" containing "erasures, alterations and interlineations in material parts"). Owing, no doubt, to the Quaker heritage of Pennsylvania's early English settlers, whose tendencies to eschew established, religious and social stricture and ceremony impelled their relocation to Pennsylvania in the first place, Pennsylvania's probate laws continue to be more permissive than those of most other jurisdictions. Compare 20 Pa. Cons. Stat. § 2502 (2000) (requiring that valid wills in Pennsylvania be in writing and be signed at end by testator) with N.Y. Est. Powers & Trusts Law § 3-2.1 (2000) (requiring that valid wills in New York be in writing and be signed at end by testator in conformance with certain prescribed ceremonial formalities). Given the differences in the philosophical underpinnings of the respective probate laws, it is hardly surprising that under similar fact patterns, New York and Pennsylvania courts have reached opposite conclusions regarding the probate of a will written in pencil with erasures evident. See *Matter of Pierson*, 197 N.Y.S. 312 (App. Div., 1st Dept. 1922) (reversing probate decree: "The paper writing admitted to probate was written on note paper in lead pencil in a straggling manner. It shows a number of erasures. It has every indication of being a mere memorandum made preparatory to the writing of a will.").

The treatment of the *Anastasoff* case²⁸⁴ illustrates the textual stability issues unique to judicial opinions that are accessible on line. The Eighth Circuit opinion of August 22, 2000, was expeditiously placed in the LEXIS database at 2000 U.S. App. LEXIS 21179, and was in fact accessed there by the author in late August 2000. After that decision was vacated by the Eighth Circuit upon rehearing en banc on December 18, 2000, its text was removed from the LEXIS database and replaced with the legend “Subsequent History: Vacated by the Court on Grant of Rehearing En Banc of December 18, 2000, Reported at: 2000 U.S. App. LEXIS 33247.”²⁸⁵ The text of the August 22, 2000, opinion was, however, subsequently restored.

Thus, with a few keyboard strokes and mouse clicks, the text of the original *Anastasoff* opinion was obliterated from the much-vaunted LEXIS database, thereby becoming unavailable to LEXIS subscribers, albeit temporarily. While the Court’s en banc opinion did in fact render the first opinion a legal nullity, it is still of value as a scholarly treatise on unreported opinions, as an historical artifact, and for use by other tax litigants and their counsel in negotiating with the taxation authority (or vice versa). Notwithstanding (or, perhaps, in light of) its subsequent restoration, the LEXIS electronic document has proven to be mutable and ethereal; the average life expectancy of an ink-on-paper version is longer by far than the approximately four months during which the August 22 *Anastasoff* opinion remained accessible prior to the tampering and tinkering by the LEXIS database administrators.

The textual stability of the Internet is inherently no better than that of the words written in chalk upon a slate blackboard.²⁸⁶ Electronic technology alone cannot provide the textual stability so vital to our legal system; there needs to be, on the part of the database purveyors, sound policies that facilitate textual fidelity

284. *Anastasoff v. U.S.*, 223 F.3d 898, 2000 U.S. App. LEXIS 21179 (8th Cir. 2000), available at <<http://www.ca8.uscourts.gov/opndir/00/08/993917P.pdf>> (accessed Dec. 10, 2002; copy on file with Journal of Appellate Practice and Process), *vacated en banc & remanded*, 235 F.3d 1054, 2000 U.S. App. LEXIS 32055 (8th Cir. 2000), available at <<http://www.ca8.uscourts.gov/opndir/00/12/993917P.pdf>> (accessed Dec. 10, 2002; copy on file with Journal of Appellate Practice and Process).

285. *Anastasoff v. U.S.*, 2000 U.S. App. LEXIS 21179 (8th Cir. 2000) (accessed Jan. 2, 2001; copy on file with author).

286. See e.g. Maggs, *supra* n. 5, at 668-70.

and permanency, together with clear, consistent and credible practice and enforcement of such policies.²⁸⁷

D. Indicia of Provenance

There is a need for the user of a judicial opinion to know and trust the provenance of the text, either through direct knowledge or through confidence in the publisher's competence and integrity. For one thing, the court from which the opinion issued must be known, so that the standing of the opinion's legal authority might be readily apparent. For obvious reasons, the date of the decision is also very helpful, if not critical.

Where the opinions are hand-scribed, the penmanship of the writer is an indicium of the opinion's source. With the advent of the printing press, the books of judicial opinions disclosed their publishers and dates, so that the users could rely upon the reputation of the publisher and/or editor. It has long been the nearly universal practice that the individual pages of the books or periodicals in which the judicial opinions appear carry page headers that include information such as the name and volume number of the reporter, date and page number. Indeed, with printed materials the very basis of legal citation is reference to the pagination of the publication in which the opinion appears.

Inadvertent editorial errors have, however, led to erroneous information about provenance appearing in otherwise reputable publications. The publication dates have been predated²⁸⁸ and

287. See generally Kelly Kunsch, *Diogenes Wanders the Superhighway: A Proposal for Authentication of Publicly Disseminated Documents on the Internet*, 20 Seattle U. L. Rev. 749 (1997).

288. E.g., N.Y.L.J. § 2 (July 6, 2001) (The page headers in Section 2 read "Friday, June 6, 2001." As June 6, 2001, fell on a Wednesday, the correct date should have been "Friday, July 6, 2001."); 1983(1) I.L.R. 36 (Punjab & Haryana) 1-102 (The 1983 (1) pamphlet of the The Indian Law Reports, Punjab & Haryana Series, was erroneously dated June 1983 instead of July 1983; a slip of paper subsequently sent to subscribers read, "Dear subscriber, The part despatched [sic] last month wrongly mentioned on the title page the month of 'June' though it should have been 'July'. It was the 11nd Volume for the year 1983. This inadvertent mistake is regretted. Editor."); see also *The Eliza Lines*, 199 U.S. 119 (1905) (showing incorrect decision date of October 30, 1895 instead of 1905. The error was corrected in the usual printed parallel sources, 26 S. Ct. 8, 50 L. Ed 115, but was carried over to the LEXIS database document, 1895 U.S. LEXIS 3817, which even gave it a LEXIS cite for the year 1895 instead of 1905. The *Eliza Lines* error was noted in the official *United States Reports* nearly ninety years later, see *Errata* in 509 U.S. at II (1993).

postdated,²⁸⁹ and there have been improper designations of the court of venue,²⁹⁰ and of the judge.²⁹¹

On the Internet, the URL is the indicium of provenance, appearing on the computer screen in a separate field from the document proper, and typically printed as a header or footer when the document is put to ink-on-paper format by the accessor's printer.

Courts are now providing for submission of briefs on CD-ROMs or other electronic text media. "Electronic briefs can contain dynamic links to pages of the record where pertinent factual information may be found, or links to the texts of cited, relevant, decisions. . . . Such use of hyperlinks can transform a static brief into an interactive tool that will greatly assist appellate court review."²⁹²

The characteristics of the text medium, then, affect the indicia of provenance. If ink-on-paper judicial opinions can be fraudulently fabricated,²⁹³ then the advent of modern text-media technologies has created new opportunities to falsify judicial opinions. There is a growing need for reliable authentication of the purported provenance of cyberdocuments.²⁹⁴ As the potential for

289. *E.g.* N.Y.L.J. § 2 (Oct. 2, 2000) (The page headers in Section 2 erroneously bore the header "Monday, October 10, 2000" while October 10, 2000, in fact fell on Tuesday of the following week.)

290. *E.g. Integrated Trade Activities Corp. v. Grumman Intl. Inc.*, N.Y.L.J. 25 (Sup. Ct., Suffolk Co. Aug. 26, 1993) (listed in New York Law Journal under Supreme Court decisions from Westchester County, but Justice Werner, who decided the case, sits in Suffolk County, and case blurb on page 1 lists the case as a Suffolk County case); *Matter of Kelly*, N.Y.L.J. 25 (Surr. Ct., Nassau Co. Apr. 24, 2001) (Nassau County case notwithstanding its appearance under "Suffolk County" heading).

291. *E.g. Estate of Cimato*, N.Y.L.J. 21 (Surr. Ct., Kings Co. Aug. 2, 2001) (Judge erroneously designated as "Cimato," which was the caption of the case and not the judge's name); *Waldman v. Bausk*, N.Y.L.J. 34 (Sup. Ct., Rockland Co. Feb. 7, 1994) (judge erroneously designated as "Bergman" instead of Bergerman.). *Cimato* was republished verbatim the next day, with the Surrogate's Court judge correctly designated as "Surrogate Feinberg." *Estate of Cimato*, N.Y.L.J. 20 (Surr. Ct., Kings Co. Aug. 3, 2001). The author was counsel for the respondent in *Waldman*.

292. Lawrence J. Bracken, *Courts Harness Power Of Computerization*, N.Y.L.J. S1 (Jan. 22, 2001).

293. See notes 260 through 265 above, and the accompanying text, for a discussion of fabricated judicial opinions.

294. See *e.g.* Michael L. Closen & R. Jason Richards, *Notaries Public—Lost in Cyberspace, or Key Business Professionals of the Future?* 15 John Marshall J. Computer & Info. L. 703 (1997). See also Mark Hamblett, *Southern District Adopts Electronic Case Filing Starting in February 2003*, N.Y.L.J. 1 (Dec. 3, 2002) (indicating that federal judge

abuse grows, judicial opinions may well require such assurances of authenticity.

VI. OUTSIDE INFORMATION IN THE MEDIUM OF PUBLICATION

In addition to the digests and case annotations,²⁹⁵ bound reporters often contain information in the preliminary matter and the back matter that, although not part of the judicial opinions or ancillary to any particular opinion, can nonetheless be of value to lawyers, judges, historians, or other scholars.

A wealth of materials of legal or historical interest, or of insight into the events of the day are to be found in the preliminary pages of many reporters. Such information can include, but is not necessarily limited to, memorials for departed members of the judiciary²⁹⁶ or the bar,²⁹⁷ presentations of portraits of living members of the judiciary,²⁹⁸ courthouse dedication ceremonies,²⁹⁹ programs or materials from commemorative convocations and receptions sponsored by the courts,³⁰⁰ and court administrative reports and statistics.³⁰¹ And, of course, the names of the sitting judges and other court personnel are frequently listed here as well.³⁰² But not all of the particularly valuable additional information is in the preliminary pages. Some reporters feature practice commentaries amid the

Lewis Kaplan had said that the decision to insist on an official paper record for anything signed by a judge was prompted by concern about the potential for forgery).

295. See notes 133 through 153 above, and the accompanying text, for a discussion of case digests and annotations.

296. *E.g.* William J. Brennan, 523 U.S. V-XLIX (1998).

297. *E.g.* 1 How. XI-XIV (1843) (Memorial tribute to Francis Scott Key). Key was a distinguished member of the bar and former United States Attorney for the District of Columbia whose place in the American historical memory was secured not so much by his accomplished career in the law as by the fact that he wrote the words to *The Star-Spangled Banner*. He was also the brother-in-law of Chief Justice Taney.

298. *E.g.* Jon O. Newman, 175 F.3d LXI-LXXXII (D. Conn. 1998).

299. *E.g.* Albert V. Bryan Courthouse, 96 F.3d LXXIX-XCV (4th Cir. 1996).

300. *E.g.* Fiftieth Anniversary of the Uniform Code of Military Justice, 50 M.J. LXI-LXIII (1999).

301. *E.g.* *Annual Report of the Code Committee on Military Justice*, 50 M.J. LXV-CLX (1997).

302. *E.g.* 521 U.S. at III-V, 117 S. Ct. 7-10, 138 L.Ed.2d ix-x (1997).

case reports, such as those written on occasion of the promulgation of new court rules.³⁰³

Even when some of the older reporters are reprinted, the reprint publishers have been known to omit prefatory materials.³⁰⁴ Such materials are often not compiled anywhere other than in the reporter in which they appear, and accordingly, would become unknown and inaccessible to users of a particular library if, for example, a law librarian decides to dispose of a set of reporters whose opinions are determined to be redundant to the other available print and electronic media available in that library.³⁰⁵ Thus, law librarians, who like to view themselves as bibliophiles whose mission is to preserve literary treasures,³⁰⁶

303. E.g. Bennett Boskey & Eugene Gressman, *The Supreme Court's New Rules for the Nineties*, 128 F.R.D. 295 (1990); Bennett Boskey & Eugene Gressman, *The Supreme Court's New Rules for the Eighties*, 80 F.R.D. 487 (1980).

304. Some of the reprints of the first volume of Howard's Reports of the United States Supreme Court have a leaf consisting of a prefatory page iii recto and lxxi verso, omitting the sixty-eight pages comprising prefatory pages iv through lxx, which include, inter alia, the advertisement by Benjamin C. Howard of his services and a memorial tribute to Francis Scott Key. See n. 297, *supra*. The author's January 2001 research in the Supreme Court Library, with its several sets of the *United States Supreme Court Reports*, has revealed that upon its shelves are both the complete reprint and the abridged version, without any apparent distinction in its catalog regarding which specimen is which. Compare United States Supreme Court Library accession item No. 231058 (42 U.S. (1 How.) (including in prefatory material pages iv through lxx)) with accession item No. 185223 (42 U.S. (1 How.) (prefatory page iii recto/lxxi verso, omitting all prefatory pages in between). Even the so-called "complete" reprint has its own minor pagination puzzlement. In Supreme Court Library accession No. 231058, the title page is unnumbered, as is its verso. The next page is iii (recto)/unnumbered verso. The page following that, *A Card, from the Reporter to his Professional Brethren and the Public Generally*, is unnumbered, as is its blank verso. Following the *A Card* leaf is an unnumbered page upon which begins the memorial tribute to Francis Scott Key, with its verso numbered xii. It would therefore seem that in the original edition of 1 How. there was a leaf either immediately before or immediately after the *A Card* leaf, possibly a blank.

305. See Joel Fishman, *The Reports of the Supreme Court of Pennsylvania*, 87 L. Libr. J. 643, 644 (1995) ("With the increasing reliance on computerized research—including not only online services such as LEXIS and WEST-LAW but also the growing number of CD-ROM products—older sets of books are discarded by today's cost-conscious attorney/law firm/judge to solve space problems."); Lon Mills, *Law Library Shares Space, Receives Computer Network*, Ind. Law. 8 (Dec. 20, 2000) (discussing conversion from bound print reporters to CD-ROM by county law library.); Edward A. Adams, *Case of the Incredible Shrinking Library*, N.Y.L.J. 1 (Nov. 27, 1995) ("Several major firms are reducing the size of their libraries by discarding thousands of case reporters that are rarely used, relying exclusively on on-line services.").

306. See e.g. Joseph J. Simeone, *Tribute: Eileen H. Searls: A Noble Bibliophile*, 44 St. Louis L. J. 799 (2000).

may well become the destroyers of valuable information in their rush to replace their old dusty books with electronic text media.

VII. CONCLUSION

Text-media technology has long influenced the law, and vice versa,³⁰⁷ though not always in a manner readily obvious to the bench or bar. The standard technology now used to write and transcribe the judicial opinions from the various benches is a far cry from the best methods known in the days of Blackstone. The text-media technology that facilitates this is a factor to be dealt with in the promulgation, dissemination, administration, conservation, and accession of the law, especially in light of the highly text-based nature of the American legal system. Debate and controversy within the legal system have long had implications for the available text media of the day, and the ongoing dialogue regarding the effects and permissible uses of unreported judicial opinions is no exception.³⁰⁸

Text-media technology issues have already insinuated themselves into the debates and controversies over the direction in which the law might or should evolve. Judges, legislators, and practitioners should be aware of the text-media technology perspectives regarding all aspects of the law, and should be able to recognize these text-media issues for what they are.

Professors and students of the law will no doubt have occasion to engage in further research of the text-media issues discussed in this article, and those that later emerge. To such scholarly ventures the author gives hearty encouragement.

307. See e.g. Kenneth H. Ryesky, *The Effects of Print and other Text Media Developments upon the Law in America*, 29 J. Tech. Writing & Commun. 3 (1999).

308. See e.g. Martin L. Haines, *End Censorship by Publishing "Unpublished" Opinions*, N.J.L.J. 27 (Oct. 30, 1995) (Author, a retired judge and a former president of the New Jersey Bar Association., advocates, inter alia, that the legal profession "[d]iscontinue entirely the use of printed books for reporting opinions" because "researchers can always print out relevant opinions contained in a computer database").