Libraries, Users, and the Porblems of Authorship in the Digital Age

Laura N. Gasaway

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INTRODUCTION

The concept of authorship, so central to copyright law, also has very practical implications for libraries and their users for a number of reasons. First, the often-contentious relationship between copyright owners and librarians may be sharply contrasted with the relationship between libraries and authors. The latter is hugely positive. Libraries cannot exist without authors who produce the works that are housed in library collections. Authors often make extensive use of library collections to perform the necessary research for their works. In fact, many authors acknowledge and thank librarians for their assistance in helping to locate arcane information so crucial to their work. A perusal of the preface in many works reveals the high regard in which authors hold libraries and librarians who are often mentioned by name. Second, libraries even contribute to an author's reputation, not only by making their works available to various readers, but also by inviting them to present their works at public gatherings in the library, and featuring authors in newsletters and in library displays. An excellent example is the Chicago Public Library's *One Book, One Chicago* program where everyone in the community reads the same book and discusses it.[1] Libraries further enhance the reputation of authors by serving as the repositories of published works, organizing and preserving them, and making them available to users.[2] Third, in many foreign countries, library activity actually helps provide financial support for authors under the Public Lending Right, particularly European coun-

1. In Chicago this effort was spearheaded by Mary Dempsey, a DePaul University College of Law alumnae and librarian. The first books were Harper Lee's *To Kill a Mockingbird* in the spring of 2002 and Willa Cather's *My Antonia* in the fall of 2002. *See* Chicago Public Library, *One Book, One Chicago, at* http://www.chipublib.org/003cpl/oboc/oboc.html (last visited Jan. 31, 2003).

2. In the United States, the first sale doctrine permits libraries to lend books and other materials to users. *See* 17 U.S.C. § 109(a) (2000).

tries, Canada, Australia, and New Zealand. Authors receive compensation when their works are lent by libraries, but often it is the country's government rather than the library or its users that actually compensates the authors.[3] Fourth, many authors feel a great love for libraries, and the reverse is certainly true. Library associations present many book awards to the "best" in a category each year to recognize outstanding authors. Examples include the American Library Association's Caldecott Award[4] for the best in children's picture books, its Newbery Award[5] for outstanding contribution to children's literature, and the Coretta Scott King Award presented to "authors and illustrators of African descent whose distinguished books promote an understanding and appreciation of the 'American Dream.'"[6] State library associations also present state and regional awards, especially for children's works and regional fiction.[7] Fifth, support of authors sometimes even involves litigation. Some of the national library associations filed an amicus brief on behalf of Tasini in *New York Times v. Tasini*,[8] a case in which freelance writers successfully sued publishers over their electronic rights. It is interesting that the American Library Association (ALA) and Association for Research Libraries (ARL) supported authors even though, in this instance, their closer interests may have been with the publishers. The resulting removal of articles authored by freelance writers from the *New York Times* database was not positive for libraries and their users, but both the ALA and ARL believed that their traditional support for authors could not be overlooked, and this compelled them to file an amicus brief on the side of writers.[9] Sixth, librarians also write books and articles, not solely dealing with library science or intellectual property,

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3. *See The Public Lending Right, in* LAURA N. GASAWAY & SARAH K. WIANT, LIBRARIES AND COPYRIGHT: A GUIDE FOR THE 1990s, at ch. 10 (1994).

4. American Library Association, *Caldecott Medal Page, at* http://www.ala.org/alsc/caldecott.html (last visited Jan. 31, 2003).

5. American Library Association, *Newbery Medal Page, at* http://www.ala.org/alsc/newbery.html (last visited Jan. 31, 2003).

6. American Library Association, *Coretta Scott King Award, at* http://www.ala.org/srrt/csking/ (last visited Jan. 31, 2003).

7. An example is the California Young Readers Medal Program administered by the California Library Association; each year young readers are encouraged to read for recreation and actually vote on the best book of the year from the list of nominees. *See* California Library Association, *About the California Young Reader Medal Program, at* http://www.cla-net.org/groups/cyrm/about.html (last visited Jan. 31, 2003).

8. 533 U.S. 483 (2001).

9. American Library Association, Washington Office, *Court Cases*: New York Times v. Tasini, *at* http://www.ala.org/washoff/tasini.html (last visited Jan. 31, 2003). However, other library associations, such as the American Association of Law Libraries, Medical Library Association, and Special Libraries Association did not join in this brief; on the other hand, they did not file on the side of publishers either.

but also with a host of other subjects. Several mystery writers are reformed librarians,[10] and a number of authors set their mystery stories in libraries, such as Jo Dereske's *Miss Zukas* series. But library collections would not be very rich if the only works in the collections were works written by librarians. Libraries depend on authors, and they have always done so. Lastly, authors provide one of the standard elements of bibliographic control. Bibliographic control is the mastery over written and published records, which is provided by and for the purposes of bibliography. Bibliographic control is defined as:

> the process of describing items in the bibliographic universe and then providing name, title, and subject access to the descriptions, resulting in records that serve as surrogates for the actual items of recorded information. Bibliographic control further requires that surrogate records be placed into retrieval systems where they act as pointers to the actual information packages.[11]

The relationship between publishers and librarians is considerably more problematic by contrast. It is often a love-hate relationship, and yet libraries and publishers are very interdependent today. Libraries are often the only purchasers of expensive esoteric works and journals that are invaluable for serious research. Librarians are asked to suggest new titles and useful works that a publisher should consider producing. Publishers like to offer "deals" to libraries on purchases, sponsor events at library association meetings, and present librarians with small company gifts that advertise the company. But there are many antagonisms too, such as exorbitant journal pricing, not so much in law, but in science and technology.[12] Not only are journal prices excessively high, but often the library subscription rate is five to six times that of an individual subscription.[13] Commercial journal publishers unabashedly discuss the maximization of profits for their shareholders and view libraries as a huge market, a source of these profits. While library budgets have increased, they have not kept pace with the rate of inflation in publishing; further, the increasing volume of material published annually is overwhelming.

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10. Mystery writers who were formerly librarians include Miriam Grace Monfredo and John Breen. Sandra Kitt, currently a museum librarian who also writes award-winning romance novels, is one of the first African-Americans to write romance novels featuring African-American characters.

11. ARLENE G. TAYLOR, THE ORGANIZATION OF INFORMATION 235 (1999) (Glossary).

12. For example, the 2003 subscription rate for the journal *Brain Research*, published by Elsevier, is $20,000.

13. The individual subscription rate for the weekly journal *Nature*, published by the Nature Publications Group, is $159 per year for 2003, while it is $845 for libraries. For 2003, the Elsevier journal *Trends in Analytical Chemistry* costs libraries $1272, as opposed to $193 for an individual's subscription.

Moreover, librarians watch with alarm at what they view as the "great copyright grab," where publishers and producers are holding copyright in more and more of the works produced while at the same time seeking to restrict the rights of users to access these works and to use them. Librarians worry that publishers are moving toward a pay-for-use world, which will exacerbate the problems of the information poor.

In this Article, I will address authorship generally and then specifically as it relates to libraries, with a special focus on authors as the central element in bibliographic control. The Article contrasts the view of authorship as it is used in libraries with that in copyright law and concludes with particular problems for libraries associated with digital works and authorship.

II. AUTHORSHIP GENERALLY

What was it that made human beings first want to document their ideas and share their creative renderings? It may have begun with Paleolithic cave paintings, but it could have begun even earlier.[14] Some of the earliest cuneiform writing is from Sumeria recorded on clay tablets. Sumerian-Bablyonian epic poetry began as oral recitations that were eventually recorded around 1200 B.C. as the *Gilgamesh Epic*. The same migration from the oral to the written tradition occurred in ancient Greece as evidenced by the Homeric tales between 900-700 B.C., which eventually were preserved in written form as *The Iliad* and *The Odyssey*. Recorded by hand, these works were copied over and over again, and it was inevitable that errors would occur in this process of hand copying. Later manuscript copies likely bore little relation to the original, and earlier copies were considered to be more authoritative and accurate than were later copies. Around the seventh century, wood block printing developed in China and was used to produce books. Wood block printing was slow to be used in Europe, but by the 1300s it had been widely adopted.[15] Although Johann Gutenberg is credited with the invention of moveable type in Mainz, Germany in 1450, there is increasing evidence that it was known and used as early as 1234 in Korea.[16] Books were printed in Europe from the mid-fifteenth century forward, and printing made

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14. Barbara B. Tillett, *Cataloguing Rules and Conceptual Models* (1996), *at* http://www.ifla.org/documents/libraries/cataloging/tilb1.htm (last visited Jan. 31, 2003) (citing DOUGLAS C. McMURTIE. THE BOOK: THE STORY OF PRINTING & BOOKMAKING 1 (1943)).

15. *Id.*

16. *See* Science Timetable, *Appearance of Moveable Metal Types in 1234, at* http://www.scienceall.com/menu/time/t06.html (last visited Jan. 31, 2003).

it possible for print houses and publishers to develop and profit from producing books. Further, authors now had the ability to distribute their works widely to share their ideas.[17]

As a group of writers began to derive their livelihood from their writings, the concept of authorship in the modern sense arose.[18]

> The new conceptions of writing and reading entailed seeing the writer as an originator one who no longer produced texts as a cog in a publication machine, but instead created them as an "author." It is this emphasis upon creativity as the mark of authorship that informs current legal discussion of copyright.[19]

In the Romantic construct of authorship, there is a hierarchy that ranks works of the imagination higher than other works.[20] And copyright law presumes that authors who have created the property are entitled to special or unique rewards because of the social value of their creations.[21] The Statute of Anne[22] made the first reference to authors in copyright in England in the eighteenth century. Although the statute referred to authors, the real intention behind the statute was to protect the rights of booksellers and printers.[23] But gradually, the concept of authorship began to replace the interests of publishers in English law. The term "[author] took on a life of its own as individualistic notions of creativity, originality, and inspiration were poured into it. 'Authorship' became an ideology."[24]

> In the course of the last three centuries, the fiscal imperatives of copyright have become aesthetic and legal constructs, changing our definitions of texts, copyright and authors. In the case of copyright, what was once a law to ensure publishers' and proprietary rights to products is now an often unspoken belief that solitary authors have original ideas, and that those authors should be able to control those ideas as an expression of their originality.[25]

Yet, copyright is not the only way to support authors. They could be subsidized directly by the government, be awarded grants (such as

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17. Tillett. *supra* note 14.

18. Martha Woodmansee. *The Genius and the Copyright: Economic and Legal Conditions of the Emergence of the "Author"*. 17 EIGHTEENTH-CENTURY STUD. 426 (1984).

19. Jacqueline Rhodes. *Copyright, Authorship, and the Professional Writer: The Case of William Wordsworth. at* http://www.cf.ac.uk/encap/corvey/articles/cc08_n01.html (last visited Jan. 31. 2003).

20. Peter Jaszi. *Toward a Theory of Copyright: The Metamorphoses of "Authorship"*. 1991 DUKE L.J. 455. 462.

21. *Id.* at 466.

22. 8 Anne. c. 19 (Eng.).

23. Edward C. Walterscheid. *Authors and Their Writings*. 48 J. COPYRIGHT SOC'Y 729. 735 (2001).

24. Jaszi. *supra* note 20. at 468-71.

25. Rhodes. *supra* note 19.

from the National Endowment for the Arts),[26] or receive funds through a Public Lending Right.

Martha Woodmansee writes that society tends to idealize the lone author working to produce a copyrighted work.[27] Libraries also are likely to see authors that way and there certainly are many examples to support this view. We envision the author pecking away on the computer keyboard to produce excellent mystery novels, historical fiction, or legal tomes. This is the ideal author—a loner who watches people and gathers characters like most of us gather coat hangers, or the author is one who uses works of nonfiction just to uncover sufficient historical details to set the work more or less accurately in a period of history.

What of works of nonfiction? Are the writers of these works not authors too? Certainly they are, but we just do not idealize them to the same extent. We think of them as serious researchers working in dusty libraries to uncover little known facts to help support arcane arguments. Or we think of them as analyzing and synthesizing scientific writings to produce new works that will make a difference, which, in the best view, will make a difference in the world at large, and at worst, will at least support the author's quest for tenure at an institution of higher education. But creativity is not reserved solely for works of fiction, artistic and dramatic works.

A. Importance of Authorship

Copyright law provides that an author is the person or persons responsible for creating an original work of authorship that is fixed in a tangible medium of expression.[28] Solo authorship is normally what one envisions when thinking about who is an author. Some scholars even differentiate between writers and authors and define an author as one who more or less has a dialogue with the public, as opposed to a writer who just writes out words.[29]

The term "authorship" generally is used as a shorthand method to encompass the relationships between a person or persons and the content of an item, which denotes responsibility for either the creation or

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26. Monroe E. Price & Malla Pollack, *The Author in Copyright: Notes for the Literary Critic*, 10 CARDOZO ARTS & ENT. L.J. 703, 713-14 (1992).

27. Martha Woodmansee, *On the Author Effect: Recovering Collectivity*, 10 CARDOZO ARTS & ENT. L.J. 279, 289-90 (1992).

28. 17 U.S.C. § 102(a) (2000).

29. *See* Marlon B. Ross, *Authority and Authenticity: Scribbling Authors and the Genius of Print in Eighteenth-Century England*, 10 CARDOZO ARTS & ENT. L.J. 495, 495 (1992).

modification of the intellectual or artistic content of the work.[30] For libraries, authorship is a very important key to grouping works or documents by subject matter, quality, and level of knowledge. In fact, the author often implies subject matter since authors tend to write in a limited number of subject fields or genre, and they possess different levels of knowledge even about the same matters. The author also tells readers about the quality of the knowledge the individual has or communicates. A reader may determine this herself or by reading reviews of the author's works. Further, the author tells the reader something about the level of the work, since some authors write only for adults or others only for children.[31]

There is a sort of magic in solo authorship because society honors and admires those authors who can produce great works as they labor alone. But that magic is not really related to copyright or library issues. Additionally, there are others who seek to be considered as authors.

Among professional indexers, for example, there is a movement to call themselves authors and to be credited with authorship for the scholarly work they perform in creating the index to a work. "The interpretation of text for an index is not unlike the process of sifting through hours of transcribed interviews and research materials gathered for a feature story. In both situations, it is necessary to pull the important topics out and make them explicit."[32] Members of the public seldom consider indexers to be authors, but the same may be said of many indexers themselves who fail to consider that they might be authors. Most indexers are anonymous, and at least one indexer has opined that if the indexer were identified at the first of each work, the quality of indexing itself would improve. Further, if editors realized that they were dealing with authors, then indexers would be given the same degree of editorial control that other authors receive.[33] If a stand-alone index meets the copyright requirements of originality and fixation, the index is copyrighted,[34] but those indexes that are described as "back of the book" indexes are not.

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30. *The Logical Structure of the Anglo-American Cataloging Rules—Part II,* Unofficial Notes on a Presentation by Tom Delsey to the Joint Steering Committee for the Revision of AACR, Leeds, England, Nov. 20-21, 1998, *at* http://www.libraries.psu.edu/iasweb/personal/jca/ccda/model2.html (last visited Jan. 31, 2003) [hereinafter *Logical Structure*].

31. Nicholas Carroll, *Cataloging of DKR Objects (By the Author or Creator)* (2001), *at* http://www.hastingsresearch.com/net/03-dkr-ir-metadata.shtml (last visited Jan. 31, 2003).

32. Nancy C. Mulvany, *Reflections on Authorship and Indexing, in* 19 INDEXER 241-42 (1995), *available at* http://www.bayside-indexing.com/author2.htm (last visited Jan. 31, 2003).

33. *Id.*

34. 17 U.S.C. § 102(a) (2000).

Translators are another example of contributors to a work who are not recognized as authors in library catalogs but may be so recognized in copyright law. "Translation is stigmatized as a form of writing, discouraged by copyright law, depreciated by the academy, exploited by publishers and corporations, [and] governments and religious organizations."[35] Since translations are defined as derivative works in the copyright law,[36] there is only a narrow area for translation.[37] The reason the role of the translator as an author is marginalized might be the prevailing concept of authorship, which focuses on originality and self-expression. Translation, on the other hand, is viewed solely as derivative. "Given the reigning concept of authorship, translation provokes the fear of inauthenticity, distortion, [and] contamination."[38] Moreover, because of its nature as a derivative work, translation challenges the notion of scholarship. It is impossible to produce a translation that is not somewhat slanted by cultural views, and yet, academic institutions venerate foreign language and literature, and do not even want to consider cultural conditions under which languages are taught.[39] While a translation is a derivative work, the copyright law recognizes this type of authorship, and a work is eligible for copyright if it meets the originality and fixation requirements. Nonetheless, a library will enter the work in the catalog, that is, "catalog" the work under the name of the author of the original work with only an added entry for the name of the translator, if there is any bibliographic entry for that individual at all. There are scholars who advocate for translation to be recognized as a distinct type of authorship, which involves collaboration between divergent groups as opposed to a form of personal expression.[40]

B.   Collaboration

As stated above, the myth of the solitary author often is just that, a myth. In fact, most of the writing that is done in the professional setting in America is the result of collaboration.[41] Collaborative works have traditionally been more likely to be works of nonfiction rather

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35. LAWRENCE VENUTI, THE SCANDALS OF TRANSLATION: TOWARDS AN ETHICS OF DIFFERENCE 1 (1998).

36. 17 U.S.C. § 101 (2000).

37. VENUTI, *supra* note 35, at 47-48.

38. *Id.* at 31.

39. *Id.* at 31-34.

40. *Id.* at 4.

41. Andrea A. Lunsford & Lisa Ede, *Collaborative Authorship and the Teaching of Writing*, 10 CARDOZO ARTS & ENT. L.J. 681, 682 (1992). The authors report that their eight-year study supports this contention. *Id.*

than fiction. Yet, collaborative works may be more valuable and contribute to the progress of science and the useful arts to a far greater extent than a novel, and yet it is difficult to feel warm and fuzzy about a collaborative group that develops a new legal encyclopedia. In some disciplines, collaboration is the norm rather than the exception. The ability to bounce ideas around a group and clarify both perception and presentation of the work is extremely useful, and in many scientific fields important papers have two, three, or many authors. So, joint authors are often the norm, especially for works of nonfiction, but there are also works of fiction that are co-authored.

The Copyright Act recognizes joint authorship when a work is prepared by two or more authors "with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole."[42] Many disputes have arisen between individuals who are involved in the production of a work over whether they should be considered joint authors.[43] Often, the dispute is over royalties and the desire of a contributor to receive continuing compensation for his contribution when the work is commercialized, especially if the work is commercially successful. Since the law provides that initial ownership of the copyright vests in the author, the importance of being a joint author is obvious.

Co-authorship also is quite common in the publishing industry. If the work is a work for hire, the employer is the author.[44] Publishers themselves may be the author under the work for hire doctrine.[45] A work for hire is defined as a work produced by an employee within the scope of her employment or a work that is ordered or commissioned for use as a collective work.[46] For this latter category, however, only certain types of contributions are defined as being a part of such a collective work. These include contributions to a motion picture, a translation supplementary work, a compilation, instructional text, a test or answer material for a test, or an atlas. Furthermore, the parties must agree in writing to the above arrangement.[47]

Collaboration on large research projects and the writing that summarizes the results present complicated issues for determining authorship, and the rules for such determination vary across academic

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42. 17 U.S.C § 101 (2000).

43. *See* Childress v. Taylor. 945 F.2d 500 (2d Cir. 1991); Thomson v. Larson, 147 F.3d 195 (2d Cir. 1998).

44. 17 U.S.C. § 101 (2000).

45. For example. *West's Federal Practice Digest* and *West's Federal Forum*.

46. 17 U.S.C. § 101 (2000).

47. See *Community For Creative Non-Violence v. Reid*, 490 U.S. 730 (1989), for a discussion of the factors courts use to determine whether a work is a work for hire.

disciplines and fields. Since authorship determines tenure and promotion, it is an important issue for faculty members. Academia is replete with stories of young authors who are entirely omitted from the authorship line unfairly but who have little recourse if they want to preserve their jobs. While there are ethical guidelines for authorship in various disciplines, they do not always make much difference even though it is unethical conduct for a senior researcher to take credit for something produced by a younger colleague. Some researchers have even petitioned the federal government to develop better authorship rules for works produced with federal funding. Perhaps even more promising is that some research labs have decided to solve the problems caused over wrangling for authorship by publishing their work under the name of the lab as the author.[48]

If more writing is collaborative today, the electronic era is hastening the demise of the idea of the author working alone.[49] Moreover, various contributors to works may seek recognition as co-authors. For example, in December 1999, cinematographers from twenty-two European countries met in Torun, Poland and produced the Torun Declaration 99. The Declaration states that the work of cinematographers on films as works of art depend on their creative work as the author of the images. Therefore, European cinematographers seek recognition as co-authors of films and other audiovisual works, and they claim moral rights as authors.[50]

C. Corporate Authorship

The reality today is that more and more works are produced as works of corporate authorship, a concept with which libraries have always been familiar. Whenever I conduct copyright law workshops, not a single librarian attendee asks me to explain the meaning of corporate authorship. The same cannot be said for faculty members and law students who frequently ask. To some extent, corporate authorship is a fiction, since a corporate entity itself is incapable of writing. But certainly employees of the corporation are capable of the feat, and because of employment contracts, the corporation claims responsibility for writing the work. The relationship between a person or corporate body and the content of the item described in a biblio-

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48. Bridget Murphy, *The Authorship Dilemma: Who Gets Credit for What? Psychologists Explore Better Ways to Define Research Authorship*, 29 APA MONITOR, Dec. 1998, *available at* http://www.apa.org/monitor/dec98/credit.html (last visited Jan. 31, 2003).

49. Woodmansee, *supra* note 27, at 289.

50. *See* Cinematographers Authorship, *Torun Declaration 99*, *at* http://www.imago.org/authorship/ (last visited Jan. 31, 2003).

graphic record is described as follows. An individual may be responsible for the creation of a work, for modifying, compiling, or performing it. A corporate body may be responsible for the emanation of the content.[51] If it is hard to feel warm and fuzzy about collaborative works, it is virtually impossible to so feel about corporate authorship, thus, the ideal of the solitary author continues.

III. AUTHORSHIP, LIBRARIES, AND BIBLIOGRAPHIC CONTROL

A. General

Librarians have a very practical view of what authorship means: it is a key element for bibliographic control. Depending on their job titles, assignments, and proclivities, librarians are more or less familiar with the detailed rules for determining authorship for bibliographic control. In fact, libraries were identifying works by the name of the author long before authors' rights developed in the seventeenth century.[52]

What does the concept of authorship mean to library users? If one were to ask them, probably not much. Most library users simply have not pondered the matter. If they were prodded about how they use the concept of authorship, they should be able to list the following as ways they use "author." First, the name of the author is an important way to locate materials in the library collection. Second, the author's name is the first part of a citation to indicate responsibility for the work, a concept with which law students should have particular familiarity. Third, users should know that the name of the author can serve as an indication of subject, quality, date, or importance of the work. Finally, "author" is a shorthand device to describe a style of writing, ideas conveyed, or a literary genre.

Some entire collections or portions of many library collections are simply arranged by author's last name. For example, the fiction collection in many libraries is not classified by subject, but is instead arranged alphabetically by author's last name. Many libraries still use the Cutter Tables, based on the alphabet, to assign alphanumeric call numbers that reflect last name of the author and shelve materials in this order.[53] Even the Library of Congress (LC) Classification scheme

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51. *Logical Structure, supra* note 30.

52. John Feather, *From Rights in Copies to Copyright: The Recognition of Authors' Rights in English Law and Practice in the Sixteenth and Seventeenth Centuries,* 10 CARDOZO ARTS & ENT. L.J. 455, 455 (1992). The "earliest glimmerings" of the recognition of the rights of authors does not occur in England before 1649. *Id.*

53. *See* CUTTER-SANBORN THREE-FIGURE AUTHOR TABLE (Swanson-Swift Revision 1969) (originally developed by Charles A. Cutter in the 1890s). For an explanation of how Cutter

arranges modern works of fiction in class P; they are then alphabet-
ized by the last name of the author within broad time periods.[54] So,
although an LC Classification number appears on the book's spine, a
large part of that number is based on the last name of the author.

In addition to the library's catalog, there are other finding aids, such
as bibliographies and indexes. The difference between a bibliography
and a catalog is that the best bibliographies list every relevant item on
a particular subject, or every item that is produced in a particular lo-
cale or is published during a certain period of time. Also, bibliogra-
phies typically do not provide a location for the materials listed.
Catalogs, on the other hand, list and detail the holdings of a particular
library or collection and include the location of the material through a
call number or other location device.[55] An index usually provides ac-
cess to portions of larger items, such as articles in periodical issues,
poetry in collections, or chapters in books. By contrast, cataloging
provides access to entire works, such as books, journal issues, and the
like.[56] Early indexes also recognized the importance of author entries
even as an adjunct to a subject index.[57]

For any library, the author catalog or author entries in a dictionary
catalog, (that is, one that interfiles author, title, and subject headings),
is an essential finding tool. The principles of authorship for the catalog
are closely related to the concept of authorship in copyright law. The
reasons that the author catalog is so important to libraries are both
historical and practical. The first reason is that the name of the author
is printed on the spine of the book and on the title page of the work,
which makes it the most readily identifiable feature of a book. Sec-
ond, if the library patron has spelled the author's name correctly, the
author catalog is the only one from which she can determine whether
the library has a particular title. In fact, early author catalogs were
really an inventory of the bookstock of a library; in medieval libraries,
this inventory feature was particularly important. A third reason for
the importance of the author catalog is the assumption that library
users will group books by author rather than by title, the other readily

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numbers are assigned, see *Cutter Expansive Classification*, at http://www.wesleyan.edu/libr/cut-
ter.htm.

54. *Library of Congress Classification Scheme*. Classes PN-PR cover English and American
literature. *See* LC CLASSIFICATION ON-LINE, CONTENTS (6th ed. 2001), *available at* http://www.
tlcdelivers.com/tlc/crs/LCSO0001.htm (last visited Jan. 31, 2003).

55. Susan E. Beck, *Classification of Information, Class Notes for LSC 311-02, Information
Literacy* (1998), *at* http://lib.nmsu.edu/instruction/lsc311/beck/06notes.html (on file with the
author).

56. *Id.*

57. JAMES A. TAIT, AUTHORS AND TITLES 17 (1969).

identifiable feature of books. But even these purposes are not the most important purpose of an author catalog. The most important reason is one that tracks the copyright concept of authorship, and that is to identify the person who has intellectual responsibility for the creation of work.[58] "The fact that a work is the embodiment of a person's thought is of supreme importance in relation to that work."[59] When it is not possible to identify an author, then libraries traditionally designate the title entry for a work as the main entry in the catalog. Thus, the two main criteria for the author catalog are identification and intellectual responsibility. The history of cataloging codes over the past 150 years demonstrates that the view about which of these two criteria is the most important has changed over time, but is somewhat related to what one considers the main purpose of the author catalog to be.[60]

The *Anglo-American Cataloguing Code* of 1908 defined author as "[t]he writer of a book, as distinct from translator, editor, etc. . . . . Corporate bodies may be considered the authors of a publication issued in their name or by their authority."[61] By 1967, the *Anglo-American Cataloging Rules* defined author similarly: "By author is meant the person or corporate body chiefly responsible for the creation of the intellectual or artistic content of as work." The definition of author from these codes broadens the definition to include editors and compilers.[62] The modern *Anglo-American Cataloging Rules 2d*, defines personal author as "the person chiefly responsible for the creation of the intellectual or artistic content of the work" and defines corporate author as "an organization or group of persons that is identified by a particular name and that acts, or may act, as an entity."[63] The concept of authorship in the *Anglo-American Cataloging Rules* is complex, and is likely to become more so. For library catalogs and other finding tools, some scholars have suggested that the term "author" be replaced with terms such as "originator," "agent," or "creator" as a way to express various facets of the concept of authorship.[64]

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58. *Id.* at 7-9

59. *Id.* at 9.

60. *Id.*

61. AMERICAN LIBRARY ASSOCIATION & THE LIBRARY ASSOCIATION, CATALOGING RULES: AUTHOR AND TITLE ENTRIES (1908).

62. TAIT, *supra* note 57, at 10-11.

63. JOINT STEERING COMMITTEE FOR REVISION OF THE AACR ET AL., ANGLO-AMERICAN CATALOGUING RULES 21.1B1 (2d ed. 2002) [hereinafter JOINT STEERING COMMITTEE].

64. Association for Library Collections and Technical Services, Cataloging and Classification Section, Committee on Cataloging: Description and Access, *Task Force on the Review of The Logical Structure of AACR, Final Report* (1999), *at* http://www.libraries.psu.edu/iasweb/personal/jca/ccda/tf-log3b.html#2:2 (last visited Jan. 31, 2003) [hereinafter *Final Report*].

B. Early Libraries and Authorship

It is impossible to know for sure how early libraries were arranged and whether there was any effort at bibliographic control. Most of these were private libraries maintained by wealthy individuals who purchased scrolls and tablets or they were temple libraries containing religious texts. The Babylonians were the first society to found libraries, but there is also some evidence of similarly old libraries in ancient Egypt. The oldest discovered library catalog is from the library of Edfu in Upper Egypt, which was engraved on the library walls.[65] As the size of collections increased, catalogs were necessary so that materials could be retrieved. Our nature as human beings is to impose order, so subject arrangement was developed, likely with author arrangement within each subject.

The first substantial non-private library about which something is known is the Great Library at Alexandria established in 290 B.C. by Ptolemy I. The library flourished under the Ptolemies and throughout the Roman period. The collection brought great fame to the city for which it is named; and because of the library, the city became famous as the literary and scientific capital of the Mediterranean and the intellectual capital of the Greek world. The number of tablets or scrolls is reported to have reached 532,000 or about the equivalent of 100,000 modern books.[66] There likely were three separate libraries in the city and not just one, so the Great Library at Alexandria may also be thought to be the first library system with branch libraries.[67]

Like any modern library, it held the store of knowledge, but in the delicate form known as papyrus scrolls. Ptolemy asked his fellow rulers around the known world to lend him texts, which he would have copied; it is rumored that he did so but sometimes kept the originals and returned the copies to the rightful owners! Additionally, when ships landed at the port of Alexandria, vessels were searched, not for contraband, but for books and maps. These were confiscated, copied, and then returned to their owners. The copies were added to the library.[68] A truly unique feature of this library is that it was not a pri-

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65. DOROTHY MAY NORRIS, A HISTORY OF CATALOGUING AND CATALOGUING METHODS 1100-1850: WITH AN INTRODUCTORY SURVEY OF ANCIENT TIMES 1-3 (1939).

66. Ellen N. Brundige, *The Library of Alexandria, at* http://www.perseus.tufts.edu/Greek-Science/Students/Ellen/Museum.html (last visited Jan. 31, 2003).

67. *Library of Alexandria, at* http://members.iinet.net.au/~nicke/library/library.htm (last visited Jan. 31, 2003).

68. As a librarian, I must comment that this method was a rather unusual type of collection development, but it apparently was quite effective.

vate library but instead was established by the state. The library was open to all, so it was, in effect, the first public library.

Destroyed in 415 A.D., the library was ransacked for gold and silver and burned, although the reasons for the destruction are conflicting and political in nature. What is clear, however, is that the library was destroyed. Today, several excavations have revealed scientific and historical documents that would have resulted in the industrial revolution having occurred 1500 years earlier. Among the lost documents included the methods used to build the pyramids and the Parthenon, alchemy, natural plant medicine, and utopian philosophy.[69] The legend of the destruction of the library by Christian monks who feared the pagan content of the library[70] offers interesting parallels to the Internet and modern attempts to control the content of what is accessible on the Internet, whether it be offensive material, material that is critical of certain governments, or works by alleged terrorists.

How were the materials in the Library at Alexandria arranged? The physical shelves may have been located in one of the outlying halls or even in the Great Hall itself. Contemporary descriptions indicate that the shelving consisted of pigeonholes or racks for the scrolls, the best of which were wrapped in linen or leather jackets in order to protect them.[71] Apparently, there was some systematic sorting, probably by classes of authors such as poets, philosophers, and orators, and then alphabetically by author within the class. Zenodotus of Ephesus (born ca. 335 B.C.), is identified as the first librarian at Alexandria, and he is credited with developing this system of collection arrangement.[72]

In Roman times, manuscripts started to be written in codex form, (i.e., in book format rather than a roll) and began to be stored in wooden chests called *armaria*. Materials were probably housed in these chests and shelves in the groups in which they were acquired. Callimachus of Cyrene (ca. 305-240 B.C.), the second and most famous librarian of Alexandria, created the first catalog listing of 120,000 scrolls, called the *Pinakes* or Tables, which listed Greek

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69. *Library of Alexandria, supra* note 67; Bede's Library, *The Mysterious Fate of the Great Library of Alexandria, at* http://www.bede.org.uk/library.htm (last visited Jan. 31, 2003) [hereinafter Bede's Library].

70. Bede's Library, *supra* note 69.

71. Brundige, *supra* note 66.

72. RUDOLPH BLUM, KALLIMACHOS: THE ALEXANDRIAN LIBRARY AND THE ORIGINS OF BIBLIOGRAPHY 226 (Hans H. Wellisch trans., 1991). It is assumed that Aristotle arranged his library by classes of authors and then chronologically within the authorship class. The size of the collection at Alexandria prevented arrangement by this method. *Id.*

works.[73] It appears that the Callimachus divided authors into classes such as epic poets, orators, and historical writers, and then arranged the authors alphabetically within the classes or subclasses. Thus, from earliest times, authorship was important for bibliographic control. Biographical information was included for each author, when possible. Unfortunately, the library catalog did not survive the destruction of the library intact, but fragments do exist.[74] The scrolls were cataloged by author, if the author was known.[75] So, this is the first recorded use of the name of the author as a finding tool for recorded knowledge.

Most of the early listings of medieval library collections were not catalogs as we know them today but were bibliographies, (a compilation of lists of books). Some of these early listings also contained biographical information about the author of the work.[76] Monastic libraries were first developed in England by the Benedictines, but it was the Carthusians that made provision for books to be lent outside the monastery. By the eleventh century the Benedictines adopted the Carthusian plan and each monastery had two book collections, one from which books could be lent outside the monastery and the second consisted of books that were kept in secure spaces and were considered to be valuable property of the house. These libraries thus had what could be described as lending and reference collections. Books were generally stored in cupboards or wherever space could be found. The monk in charge of the library was the precentor, who was also the chief singer and archivist.[77]

The first catalogs of medieval monastic libraries were actually inventory lists often arranged in the order in which the manuscript was received by the monastery.[78] Early library catalogs included information such as title, author, location in library, and the name of scribe who copied the book listed on a card.[79] Some catalogs may have been organized broadly by form (literature, music) or by discipline, such as science, religion, law, or by authorship or title.[80] One of the earliest such catalogs is that of the Glastonbury Abbey Library, produced in 1017, which was primarily an inventory (and thus was author ar-

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73. Brundige, *supra* note 66.

74. *See* Moustafa El-Abbadi, *The Library at Alexandria—Ancient and Modern, at* http://www.greece.org/alexandria/library/library1.htm (last visited Jan. 31, 2003).

75. NORRIS, *supra* note 65, at 4-5.

76. BLUM, *supra* note 72, at 1.

77. NORRIS, *supra* note 65, at 15-16.

78. TAIT, *supra* note 57, at 16.

79. Beck, *supra* note 55.

80. RUTH FRENCH CARNOVSKY, THE DEVELOPMENT OF SUBJECT ACCESS TO LITERATURE 3-4 (1969).

ranged). Its most famous catalog, however, was produced in 1247, and it adopted an unusual classification based on whether the value of the work was due to the author or its subject. No other library appears to have used this method of classification.[81] Christchurch, Canterbury produced its library catalog between 1313 and 1331, and it was a subject catalog with author arrangement under at least one subject, theology, the largest category.[82] The catalog at the Exeter Cathedral Library was compiled in 1327 and was an author catalog.[83] By the fifteenth century, some of the catalogs of cathedrals, monasteries, and universities were still author catalogs but the majority had adopted subject catalogs with listings under each subject by author.[84]

Although many would identify the nineteenth century effort to share the cataloging for journal literature as the first effort at cooperative cataloging, it actually was initiated several centuries earlier. In 1296 the *Registrum Librorum Angliae* was produced, probably the work of Franciscans. The *Registrum* lists 183 monastic establishments, each of which had a library and was assigned a sequential number. Following the list of libraries is the author catalog that lists ninety-four authors. Under each author's name there is a list of titles along with the list of libraries that held the item as indicated by the number that denotes the name of the library.[85] Thus, the earliest attempts at bibliographic control were dependent on author arrangement exclusively or on author arrangement within each subject heading.

Catalogs of private libraries are few, but many early collections that are detailed in wills and inventories of various estates indicate that some of these libraries were extensive. The inventory listings often are by author unless the listing was prepared by a valuator who cared little for books who may have listed the work as "X" number of volumes, bound in calfskin.[86] The first bookseller's catalog was produced in 1595, the *Catalogue of Andrew Maunsell*, which consisted of two parts, an author listing and a subject listing. The third part was to continue the subject listing but had not been completed at the time of Maunsell's death.[87]

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81. NORRIS. *supra* note 65. at 28-29.

82. *Id.* at 38-40.

83. *Id.* at 46.

84. *Id.* at 117.

85. *Id.* at 30-33.

86. *See* ROBERT J. FEHRENBACH. PRIVATE LIBRARIES IN RENAISSANCE ENGLAND (Elisabeth S. Leedham-Green ed.. 2001) (listing over 1600 private libraries and their contents drawn primarily from probate inventories).

87. NORRIS. *supra* note 65. at 136-38.

In the Middle Ages, there were no public libraries, yet the needs of scholars and researchers led to the development of some of the principles from which the modern library developed. Likely the richest library was the private library of the King of France, which by about 1500 had nearly two thousand books, of which some two hundred were printed volumes.[88] The library at the University of Leyden dates from 1575, and early engravings show that it was a subject-classified library with a variety of authors in each section. At Oxford University, the library was completely destroyed in 1549; Sir Thomas Bodley proposed that he should refit and restock the library,[89] but he insisted on an author catalog for the new collection as opposed to a subject catalog.[90] The Bodleian Library at Oxford University dates from 1597 and was open to the public as early as 1602. The first librarian, Thomas James was instructed to compile lists and submit them to Bodley so that duplicates would not be purchased.[91] The first Bodleian catalog was published in 1605, and it was the first general catalog for a European library. It was divided into four subject groups: theology, law, medicine, and arts. Within each of the four subject divisions, the catalog was arranged by author. The books were not shelved in author order, however, but by size.[92] The second catalog was published in 1620 and it was the first general library catalog to be published in author order abandoning subject classification entirely, but the preface still advised librarians to arrange their collections by size.[93] During the seventeenth century the Bodleian catalog tried both author and classified arrangements, and found author to be more advantageous.[94] During the eighteenth century, several libraries continued to use author arrangement for their catalogs, including the Bodleian, and some used a chronological arrangement of works under the name of the author. Except for the dispute over author versus subject classification, cataloging was becoming more standardized by this time.[95]

C. *Importance of Author in Bibliographic Control*

The name of the author is the primary or "main entry" for a work. Although there are vagaries of how names appear on the works, these

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88. HENRI BOUCHOT, THE BOOK 308-09 (1890).

89. NORRIS, *supra* note 65, at 142.

90. TAIT, *supra* note 57, at 17.

91. BOUCHOT, *supra* note 88, at 316-17.

92. NORRIS, *supra* note 65, at 142-44.

93. *Id.* at 147-49.

94. *Id.* at 157.

95. *Id.* at 197.

are far less significant than how the title of a work may be expressed over time. Title pages, as they are now known, do not occur in incunabula (i.e., early printed books), although a small number of fifteenth century printed books had such title pages. In fact, most of these early books followed the practice of medieval manuscripts, which begin with the text proper. It was a universal practice to include the name of the author and the title at the end of the printed book along with the name of the printer, place, and date. Because of the many homonymous names that were used in medieval times, in order to identify the author, library catalogs often included information such as the author's position or distinctive title (almost always religious).[96]

As library collections grew in size and complexity, library managers began to develop listings of these works, not only for inventory control but also to help locate the work when a user wanted to retrieve it. Early catalogs were in the form of book catalogs with entries for each work held by the library—cuneiform inventory lists, manuscript lists of holdings of monastery libraries, and lists of holdings in private collections. These tended to be arranged by author, if the author was known, and otherwise by title.[97]

In England, Sir Antonio Panizzi, keeper of printed books at the British Museum, created a set of cataloging rules to govern the listing of the growing collection at the British Museum. In 1841, he produced his "91 Rules," and he documented the practice of using "entries" and "references" to refer one to the main entry (i.e., author entry).[98] These rules are said to be the beginning of modern cataloging rules; prior to this time, each cataloger made his own rules, and often they were not committed to writing. The cataloging rules that were then developed in England and the United States were based on Panizzi's rules.[99] Panizzi refused to develop a subject classification scheme because he believed that the name of the author should form the basis for the arrangement of the catalog. He testified before the Trustees of the British Museum that a catalog arranged alphabetically by the author's last name was the most useful arrangement since stu-

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96. BOUCHOT, *supra* note 88, at 326-27.

97. Tillett, *supra* note 14.

98. *Id.*

99. NANCY BRAULT, THE GREAT DEBATE ON PANIZZI'S RULES IN 1847-1849: THE ISSUES DISCUSSED 1 (1972). When Charles Ammi Cutter published his *Rules for a Printed Dictionary Catalog of Libraries* in 1876, he acknowledged that he incorporated the rules of Panizzi. Charles Coffin Jewett, the legendary Librarian at the Smithsonian, referred to them as the "famous 91 rules." *Id.* (citing CHARLES AMMI CUTTER, RULES FOR A PRINTED DICTIONARY CATALOGUE (1876)).

dents and other users would know the name of the author of the book they wished to peruse.[100] As late as the mid-nineteenth century the British Museum still used the author as the primary entry element when there was an identifiable author. If the author was unknown, then the primary entry was under the title. Multiple authors were listed depending on how many were credited with the title, just as is done today for citations in bibliographies.[101] Panizzi's rules continued to be used by the British Library, but they had been reduced to forty-one rules by 1936.[102] In many ways, Panizzi's code is both pragmatic and practical, and is as modern as any of its successors.[103] The British Library catalog continued to expand, and by 1975 the original 150 volume catalog had expanded to 2000 and would soon fill 3000 volumes; further, there was not sufficient room in the reading room to house the rapidly growing catalog.[104] Virtually all library catalogs in Britain were subject-classified catalogs by the mid-twentieth century with the exception of the British Museum. By this time, the trend also appeared to favor a dictionary catalog as opposed to a classified one.[105]

Panizzi's "91 Rules" and the principle of authorship formed the foundation of the Anglo-American cataloging tradition—now 161 years of tradition. "The importance of the concept of authorship, whereby libraries acknowledge the creator of a work, is a cornerstone of the Anglo-American cataloguing rules, since librarians believe that users identify a work with an author."[106] As indicated, the name of the author has been the primary entry and arranging device in library catalogs for centuries. A work is first identified by the name of the author, referred to today as the main entry, and carries forward through the bibliographic description on a catalog entry.[107] Panizzi recognized joint authorship and collective authorship but did not appear to differentiate between them, and he also recognized corporate authorship.[108] In the United States, Charles A. Cutter, who developed widely followed cataloging rules beginning in 1876, identified two purposes of a library catalog: (1) to provide an indication of whether a library has a particular title by a given author; and (2) to

100. BRAULT, *supra* note 99, at 13.
101. Tillett, *supra* note 14.
102. TAIT, *supra* note 57, at 21.
103. *Id.* at 145.
104. NORRIS, *supra* note 65, at 213.
105. *Id.* at 225, 228.
106. Tillett, *supra* note 14.
107. *Id.*
108. TAIT, *supra* note 57, at 22, 25.

indicate the library's holdings of books by a particular author.[109] The first function may be described as the finding list function and the second as the intellectual responsibility function, but both functions clearly support the importance of authorship to libraries and library users. Early library catalogs were in book form, but by the end of the nineteenth century, the card catalog was becoming the preferred format. Under the leadership of the Library of Congress, the standard entry for the card catalog was the main author entry, and it adopted Cutter's principles by using the main entry to describe the intellectual responsibility for the work.[110]

1. Authorship and Cataloging Rules

As bibliographic control grew, the desire for standardization in cataloging increased. Even before Panizzi, some libraries had their own cataloging rules. Panizzi's rules were published, however, evidencing the fact that librarians sought some uniformity from library to library so that the same book could be identified the same way in each library.

Cutter defined authorship for his cataloging rules, and the definition he used continued to be used in later cataloging codes:

> Author. In the narrower sense, is the person who writes a book; in a wider sense it may be applied to him who is the user of the book's existence by putting together the writings of several authors (usually called the editor, more properly to be called the collector). Bodies of men (societies, cities, legislative bodies, countries) are to be considered the authors of their memoirs, translations, journals, debates, reports, etc.[111]

The *Anglo-American Code* of 1908 (AA) was the result of cooperation between the ALA and the Library Association (Britain), which was first suggested by Melvil Dewey, the father of library science. In Britain, the AA remained the cataloging rules in force for more than fifty years. The AA was designed for large library collections and the primary difficulty for this code was reconciling the needs for card catalogs in the United States with Britain's book catalogs. Generally, entry is under the name of the author and under the title if there is no author who can be identified.[112] The definition of author is instructive and somewhat tracks the general definition in copyright law:

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109. *Id.* at 18 (citing CHARLES AMMI CUTTER, RULES FOR A DICTIONARY CATALOGUE 12 (4th ed. 1904)).

110. *Id.* at 18-19.

111. *Id.* at 39-40 (citing CHARLES AMMI CUTTER, RULES FOR A DICTIONARY CATALOGUE 14 (4th ed. 1904)).

112. *Id.* at 48-49.

1. The writer of a book, as distinguished from translator, editor, etc.
2. In a broader sense, the maker of the book or the person or body immediately responsible for its existence. Thus a person who collects and puts together the writings of several authors (compiler or editor) may be said to be the author of a collection. Corporate bodies may be considered the authors of publications issued in their name or by their authority.[113]

The AA recognized joint authorship and multiple authorship as well. For joint authors, the order is the order as it appears on the title page of the work.[114]

The 1949 *ALA Cataloging Rules*[115] were based very closely on the AA but were intended to reflect the best current practices in cataloging in the United States. At that time, most U.S. libraries used the Cutter principles or rules for the main entry and followed the Cutter definition of author as did the AA. Again, the choice of main entry was first, the name of the author, whether a personal author or a corporate body.[116] For works with multiple authors, the 1949 *ALA Cataloging Rules* continued to designate the person principally responsible for the intellectual content of the work as the author, which required some work on the part of the cataloger. The rules were complicated with sixteen separate rules dealing with authorship, and they followed the AA in departing from the principle of designating as the author the first name listed on the title page. Instead, now the author is the person responsible for the work whether her name appears on the title page or not. If more than three persons are listed on the title page, the title is the main entry.[117] The rules of corporate authorship are quite similar to those in the AA, in which four types of corporate bodies are recognized: societies, governments, institutions, and miscellaneous bodies.[118]

The long-awaited *Anglo American Cataloging Rules* (AACR)[119] was published in 1967, primarily to respond to the needs of large libraries, but the needs of smaller libraries are also taken into account. The AACR defines author as follows:

By "author" is meant the person or corporate body chiefly responsible for the creation of the intellectual or artistic content of a work.

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113. AMERICAN LIBRARY ASSOCIATION & THE LIBRARY ASSOCIATION, CATALOGING RULES: AUTHOR AND TITLE ENTRIES, at xiii (Clara Beedle ed.. 1908).

114. TAIT, *supra* note 57, at 52-55.

115. AMERICAN LIBRARY ASSOCIATION, CATALOGING RULES FOR AUTHOR AND TITLE ENTRIES (Clara Beedle ed., 1949).

116. TAIT, *supra* note 57, at 77-78.

117. *Id.* at 79-81.

118. *Id.* at 86.

119. AMERICAN LIBRARY ASSOCIATION, ANGLO-AMERICAN CATALOGUING RULES 1 (1967).

> Thus composers, artist, photographers, etc. are the "authors" of the works they create; chess players are the "authors" of their recorded games; etc. The term "author" also embraces an editor or compiler who has primary responsibility for the content of a work, e.g. the compiler of bibliography.[120]

The definition was clearly expanded to recognize other types of creators of copyrighted works. The structure of the code is different from earlier codes in that the focus is on a few basic rules for different types of publications, but the principle continued to be using the tradition of intellectual responsibility for the main entry. The AACR modified this principle, however, in that the author entry is normally based on the statements that appear on the title page of the work. This likely is because modern books all have title pages, unlike incunabula. The statement on the title page is not conclusive evidence of intellectual responsibility, however, since Rule 1A says that the work should be entered under the author whether the author is named on the title page or not. Rule 1B goes further and states that if the publication itself erroneously attributes authorship to someone who is not the author, the work should be entered under the name of the actual author.[121]

The *Anglo-American Cataloging Rules 2d* (AACR2) uses the following definition:

> A personal author is the person chiefly responsible for the creation of the intellectual or artistic content of a work. For example, writers of books and composers of music are the authors of the works they create; compilers of bibliographies are the authors of those bibliographies; cartographers are the authors of their maps; and artists and photographers are the authors of the works they create. In addition, in certain cases performers are authors of sound recordings, films, and videorecordings.[122]

The latest revision of the AACR2 seems to use roughly the same definition, but is less detailed. It defines personal author as "the person chiefly responsible for the creation of the intellectual or artistic content of the work" and defines corporate author as "an organization or group of persons that is identified by a particular name and that acts, or may act, as an entity."[123] The general rule is:

> Enter a work by one or more persons under the heading for the personal author . . . , the principal personal author . . . , or the probable personal author . . . . In cases of shared authorship and mixed

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120. *Id.* at 9.

121. TAIT, *supra* note 57, at 123-25.

122. AMERICAN LIBRARY ASSOCIATION ET AL., ANGLO-AMERICAN CATALOGUING RULES R. 21.1A (2d ed. 1978).

123. JOINT STEERING COMMITTEE, *supra* note 63, at R. 21.1.

personal authorship . . . enter under the heading for the person named first.[124]

2. Indexing and Authorship

Another form of bibliographic control is indexing. An index may be defined as a systematic arrangement of entries designed to enable users to locate information in a document. The process of creating an index is called *indexing*, and a person who does it is called an *indexer*.[125] There are many types of indexes and some are automatically generated, especially those for digital documents. Increasingly, authors are asked to provide the indexing, especially for nonfiction works. Almost all other forms of indexing also rely heavily on the author as the primary indexing term. Multiple access points likely mean that other individuals who had something to do with the production of the work may be named, but indexers do not consider these individuals to be authors either.[126]

D. Personal Authors Versus Corporate Authorship

The term "authorship" is used in the AACR2 only with reference to works of personal authorship. The term would appear to encompass those relationships mentioned earlier between that person and responsibility for the work. Presumably the other relationships between a person or persons and the content of an item (e.g., responsibility for performance in editing) fall outside the scope of "authorship." Most notoriously, entry under the heading for a collaborator in a work of shared responsibility is made only if there are no more than three principal authors or three persons responsible; this is the so-called "rule of three." While it certainly would be possible to include entries for more authors, at some point a decision was made to limit the number to three. In an era of card catalogs, this made absolute sense because there was a need to restrict the size of any library's card catalog since the physical space demands could be enormous. Moreover, the work to file the cards and to maintain the entries was very expensive. In the digital age, however, these space restrictions are considerably reduced, and no card filing is required, therefore, the rule of three is of questionable utility.[127] Some maintenance work is still required to

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124. *Id.* at R. 21.1A2.

125. American Society of Indexers, *Frequently Asked Questions, at* http://asindexing.org/site/indfaq.shtml (last visited Jan. 31, 2003).

126. Mulvany, *supra* note 32.

127. *See Final Report, supra* note 64.

clarify the form of certain names, but this can be done globally via electronic means as opposed to manually.

Normally, in published works, authorship is fairly easy to determine and verify, but not always. Archival materials, manuscripts, and early printed works present different challenges. Anonymous and pseudonymous works also present problems. For years, libraries have been in the business of trying to uncover pseudonyms and to assign responsibility for anonymous works. Perhaps librarians do not like uncertainty, but eliminating this uncertainty about particular works has been a considerable boon to researchers. It seems today that there are many fewer anonymous works produced, and authors who write under pseudonyms often reveal their identities within a few years after the work appears, so neither of these issues creates the problems for catalog librarians that they once did.

Libraries treat authors of any work alike whether they are artists, photographers, playwrights, or composers. But what if the author or artist is truly unknown? Libraries often identify the work by how closely an unidentified artist worked with an identified artist highlighted by expressions, such as "school of Rembrandt" or "copyist of Rodin," which indicates an influence. This is often referred to as "shadowy authorship" and occurs more frequently as librarians catalog more art objects and surrogates of art objects such as slides, photographs, and digitized images.[128]

Typical corporate authors may be companies, universities, other institutions, or publishers. The concept for bibliographic control in libraries is to credit the entity responsible for the creation of the work. Unlike patents, the named responsible party does not have to be an individual. Thus, if the work is a work for hire, the copyright law establishes that the employer is the author.[129] Libraries accept this, not because of the copyright law, but because usually multiple individuals within the corporation are somehow responsible for that work, or the company itself has accepted responsibility for the work of some unsung hero and listed itself on the title page of the work as the author.

Authorship generally is not attributed to editors, translators, performers, and the like in library catalogs. These individuals may be referenced in the bibliographic record but not as an author. This is similar to the way these individuals are treated in copyright law, usu-

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128. Art Libraries Society of North America, *Cataloging Advisory Committee, Anonymous Artist Relationships in the MARC 21 Bibliographic Format* (May 1999), *at* http://www.loc.gov/marc/marbi/dp/dp115.html (last visited Jan. 31, 2003).

129. 17 U.S.C. § 101 (2000).

ally they are not credited as being an author; but note that translators may be authors if the work evidences sufficient creative authorship.

Ownership of the copyright is a tremendously important issue in copyright law because it determines who may exercise the exclusive rights. However, it is unimportant for library bibliographic control purposes. Responsibility for the work is a real issue. Many reference works are compilations, and most often the publisher owns the copyright in these works of corporate authorship. The work may have an individual editor, but that person is not the author, and the main entry likely will be under title and not under the name of the publisher.

E. Authority Control

Determining name variants and problems of misspelling may seem mundane, but libraries are trying to create a permanent record of works produced by an author. Inaccuracies in the name mean that researchers may not be able to identify all of the works that the library has by the author, or that by using the catalogs of multiple libraries, a researcher may not locate all of the works by a particular author. Ensuring this uniformity is done through what is called authority control or authority records, which is now centralized at the Library of Congress but is actually a large cooperative project.[130] Authority control is defined as "the consistent use and maintenance of the forms of names, subjects, uniform titles, etc., used as headings in a catalog. Since this process creates a link between bibliographic records and the authority file, authority control provides the underlying structure of the catalog."[131] This philosophy of using a single authorized form of an author's name provides unity and order to an individual catalog. It also helps with international records of the author. The classic example is Mark Twain/Samuel Clemens, but soon could include popular icons such as Madonna and Sting. Further, authority files can resolve alternate or incorrect spellings of an author's name. The Name Authority File at the Library of Congress governs the headings for persons, corporate bodies, conferences, and geographic entities, such as governments that are capable of authorship.[132]

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130. Gary L. Strawn. *Accessing and Distributing Authority Files*, Proceedings of the Taxonomic Authority Files Workshop, Wash., D.C., June 22-23, 1998, *at* http://calacademy.org/research/informatics/taf/proceedings/Strawn.html (last visited Jan. 31, 2003).

131. *Authority Control: A Basic Glossary of Terms*, *at* http://ublib.buffalo.edu/libraries/units/cts/ac/def.html (last visited Jan. 31, 2003).

132. John J. Riemer. *Overview of Library Authority File Record Structure, Format, Content, and Processes*, Proceedings of the Taxonomic Authority Files Workshop. Wash., D.C., June 22-23, 1998, *at* http://research.calacademy.org/taf/proceedings/Riemer.html (last visited Jan. 31, 2003).

Because of this crucial need for accuracy in order for authority control to function, errors must be corrected—which often means that libraries all over the world are constantly correcting and updating their records. If scholars ultimately prove that Shakespeare indeed did not write all of the plays attributed to him, library records worldwide will be amended to so reflect. The magnitude of that effort would rival that required to be made in various statutes mandated by changes in the tax code or the PATRIOT Act and all of the volumes of the U.S. Code that have to be revised and/or replaced because of the significant changes made in many statutes by a single comprehensive act of Congress.

In the analog world, authorship was finite. Once it was determined and the bibliographic record created, the record was complete (absent errors that had to be corrected). This may not be the reality in the digital world.

IV. THE DIGITAL ENVIRONMENT: COMPLICATIONS FOR LIBRARIES RELATING TO AUTHORSHIP

There certainly are unique problems for libraries in dealing with the concept of authorship in the digital environment, but the problem solving techniques from the analog world may be successfully imported to ease some of the difficulties. The problems for copyright are at least as complicated as those for libraries. "Around the complex and muddy doctrine of copyright, spurred by the legal efforts of the culture industries, the web is being articulated to support and reaffirm a corporate, commercial system of cultural distribution, to the exclusion of important alternatives."[133] By contrast, users of the Internet show scant concern for copyright and its economic rationale, and the real power of the Internet is the potential for dialogue and exchange between users. Interactivity between the reader and the author through hypertext on the web is an example of this change.[134] This will certainly affect libraries and the bibliographic control of digital objects. "Currently, cyberspace is a place where commodification is unimportant. However, traditional authors and traditional industries see a vast market ready for their 'goods.' In making this market safe for proprietary goods the possibilities for an alternative may die

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133. Tarleton Gillespie, The Digital Renovation of Authorship (unpublished Ph.D. dissertation, University of California, San Diego), *at* http://communication.ucsd.edu/people/g_gillespie.html (last visited Jan. 31, 2003).

134. Deborah Halbert, Weaving Webs of Ownership: Intellectual Property in an Information Age ch. 8 (draft of Ph.D. dissertation, University of Hawaii, Hawaii Research Center for Futures Studies), *at* http://www.futures.hawaii.edu/dissertation/chapter8.html (last visited Jan. 31, 2003).

out."[135] By contributing commentary to a digital file, the reader has become an author. Some scholars advocate a move toward interchange and away from individual ownership of works on the web.[136]

A. Search Engines

The name of the author is one of the primary search terms people use on the Internet, and search engines[137] are able to recognize author's names. Search engines do not deal well with variants of names, however, because there is neither real "authority control" on the web nor the useful "see" and "see also" references one finds in library catalogs to direct users to related name variants.

Search engines rely on metadata, which may be defined as information about information. Metadata consists of three types of data: (1) administrative metadata—information about rights, authorship, and ownership; (2) structural metadata—used by viewing software; and (3) content metadata—description and title.[138] Metadata is useful for resource, resource discovery, authentication, management, provenance, version control, resource system use, and also the tracking of users. It will become especially important for developing interoperable library systems. Metadata also has some similarity to Copyright Management Information,[139] but it is much more extensive. Already there is automated indexing of digitized files based on metadata using metadata standards.[140]

> Until such time as artificial intelligence is perfected, dynamic knowledge repositories will benefit from "adding in" human intelligence to the metadata. Authors or creators of objects are probably the cheapest and most available source of metadata, and they are often quite familiar with their intended audience, whether their information is about cooking, flying, or flying saucers.[141]

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135. *Id.*

136. *Id.*

137. A search engine is defined as "[a] program that searches documents for specified keywords and returns a list of the documents where the keywords were found." WEBOPEDIA, *at* http://www.webopedia.com/TERM/s/search_engine.html (last visited Jan. 31, 2003).

138. For an excellent explanation of metadata, see *Metadata Chart,* at http://www.getty.edu/research/institute/standards/intrometadata/index.html.

139. *See* 17 U.S.C. § 1201 (2000).

140. Some of these standards are EAD, *Encoded Archival Description, at* http://www.loc.gov/ead/ (last visited Jan. 31, 2003); *Dublin Core Metadata Initiative, at* http://dublincore.org/ (last visited Jan. 31, 2003); *MARC Standards for Machine-Readable Cataloging Records, at* http://www.loc.gov/marc/ (last visited Jan. 31, 2003).

141. Carroll, *supra* note 31.

Level is another element of authorship. Regardless of the degree of sophistication, most writers address the majority of their works to a particular level of sophistication. This means that the author's name is an important variable for extracting information for metadata that relates to the user's sophistication level.[142] Other attributes of an author that provide useful metadata information are position, rank, and honors, which would be useful as a searchable field. In some countries, authors do not want to write under their own names for fear of retribution, thus alias is another important attribute of an author that provides useful information for metadata. Since people post documents about personal matters such as family, pets, and travel, as well as about professional or business matters, metadata that would permit filtering out the personal matter would also be useful. Another aid would be the affiliation of the author to include organizations or associations.[143]

While metadata is the description given to indexing on the web, to some extent a library catalog is filled with metadata. Each card in the catalog or entry is filled with various elements of metadata about a particular work. Standards for describing digital works hold great promise for ways to address the huge number of documents on the web. But regardless of standards, it is likely that the author will continue to be the primary access point for digital works.

B. Particular Problems for Digital Works

As libraries increasingly offer access to on-line materials, they are adding bibliographic records for these Internet works to their catalogs. There is considerable debate about whether and how to catalog works that exist only on the Internet, especially since what is available increases exponentially. Not only that, but works that exist on the web disappear with some frequency; and for countless others, the location on the web simply changes. Thus, any attempt to add Internet resources to any library catalog is extremely complicated. "The easy availability of on-line materials, and the fact that digitized forms can be easily and cheaply created and altered by individuals, have shaken some of our fundamental concepts of intellectual property rights, authorship, publishing, and bibliographic control."[144] There is a need to assess whether additional relationships between persons and corporate bodies and the content of an item in the context of newly emerging forms of intellectual and artistic expression and multimedia

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142. *Id.*
143. *Id.*
144. Tillett. *supra* note 14.

productions should be reflected in catalogs. For example, is it time to reconsider how libraries treat joint and multiple authors, especially for scientific journal articles? In other words, is it time to dump the rule of three?

What about sequential authorship? In the past, sequential authorship was manifested only in new editions of a work or in series of works, each complete in itself. By contrast, websites are constantly updated but not necessarily within the confines of the digital equivalent of an edition, and the responsibility for the intellectual content may change. For example, if a law professor creates course webpages she may turn them over to another professor who teaches the course in subsequent semesters. So now, there is a second author. Suppose that the second author makes extensive changes, and then he permits yet another faculty member to use the webpages, and that third author also makes numerous additions and changes. Who then is the author? Perhaps all three are authors, but they never exactly agreed to be joint authors, much less agreed in writing. Further, at some time, the content has changed to such an extent that the only contribution of the first author was the idea to create course webpages, an unprotectable contribution. All of the content as well as the design may bear little relation to the original. At present, there is simply no way with bibliographic control to deal with what may become a norm for digital works; thus, bibliographic control may have to develop fluidity to meet the challenge of sequential authorship.

A related question is, when is a work finished or complete so that the bibliographic record can be completed? With digital works, how will libraries and others know when a work is complete? With printed works it was clear when the work was complete: the point at which the publisher distributed copies to the public. Even in the legal world, titles were published in looseleaf format and continuously updated, but the work was considered complete only when a new edition was published. In the digital environment, a work may never be complete. Even for authors who create their own original works or permit others to digitize their analog works, there are questions of when an on-line product is final. Since digital renditions can easily be corrected and updated, libraries need better ways of identifying which version a user is viewing on the screen as well as which versions catalogers will want to describe, and which library selectors will want to obtain and preserve for the future.

Coupled with the problem of sequential authorship or even overlapping authorship, new solutions will have to be found to the problems of authentication. The easy availability of on-line materials, and the

fact that digitized formats can be easily and cheaply created and altered by individuals, have shaken some of the fundamental concepts of intellectual property rights, authorship, publishing, and bibliographic control. Individuals can self-publish on the web. Moreover, it is far too easy to capture someone else's work and modify it to be one's own without paying the original creator for that right or receiving permission.[145] How can one determine whether a digital work is authentic? To some extent, this is hardly a new problem that originated with the Digital Age. Texts in manuscript form that were copied over and over again, were certainly subject to corruption.[146] Who is the author, and who published the work? Can the authors and publishers be trusted (are they worthy of one's research time)? Is the rare e-book what it purports to be? Is the manuscript actually by the person to whom it is attributed, and is its date accurate? These questions are now being asked more openly of objects that originate in digital form because libraries have not yet adopted practices or standards for providing ready answers to them.[147]

Deciding what is required to authenticate digital objects may be informed from past practices with non-digital objects. Because digital objects bear less evidence of "authorship, provenance, originality and other commonly accepted attributes than do analog objects, they are subject to additional suspicion. Tests must be devised and administered for authentication."[148] When objects originate in electronic form, it may be even more difficult to certify that the object is the product of its author. Absent a deliberate and distinctive marking (such as a digital watermark) implemented by the author, a mark that could not be guessed by another or altered by anyone, it may be impossible to authenticate an electronic document beyond doubt.[149]

If authors of files or images do not take steps to establish authorship of their work, a library's only alternative for cataloging is to accept the assertions of others. There simply will not be the same type of evidence that might exist for a physical object such as handwriting, marginal notes, ink, or binding, and the work is more changeable, either intentionally or accidentally.[150] On the other hand, it is possible to fight false authorship with traditional tools such as having the au-

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145. *Id.*

146. Ross, *supra* note 29, at 497 (citing 1 ELIZABETH EISENSTEIN, THE PRINTING PRESS AS AN AGENT OF CHANGE 10 (1979)).

147. Charles T. Cullen, *Authentication of Digital Objects: Lessons from a Historian's Research, at* http://www.clir.org/pubs/reports/pub92/cullen.html (last visited Jan. 31, 2003).

148. *Id.*

149. *Id.*

150. *Id.*

thor register the work with a third party,[151] or register the work for copyright. For scholars and historians who use digital objects in their research, authentication will continue to be a huge issue, and authorship is one of the principal issues to be authenticated. Electronic files created by someone who has taken no steps to establish authorship are problematic, and the cataloger will be the one to establish authorship. In the case of a digital object, this is more difficult than if it were an analog object due to the lack of physical evidence provided by analog objects—evidence that offers the means to test the cataloger.[152]

The problem of locating missing authors is even more difficult for digital works. It is hard enough in the analog world, but it is much more difficult in the digital environment. Anyone who uses the web to any extent has found an article or other object on the web and been absolutely unable to identify who wrote it. If there is an indication that the work came from the *New York Times*, then there is a possibility of identifying the author through the publisher. But what if there is absolutely no information, even in the metatags? Then the dearth of clues to help identify the author probably means that it cannot be done, and the bibliographic and indexing information will just remain incomplete without authorship attribution.[153]

Reversion of the copyright to the author or her heirs between the thirty-fifth and fortieth year[154] may have interesting implications for digital works that are included in electronic databases. The U.S. Copyright Act provides that during this five-year window, when the author has transferred rights to the work to a third party such as a publisher, the rights revert to the author or to his heirs during this time period. How will this impact the ability to track and identify authors? It could result in a problem similar to that experienced when freelance authors were recognized by the United States Supreme Court as holding the electronic rights in their articles which had not been specifically transferred.[155] Some publishers that had included articles by freelancers in electronic databases felt they had no choice but to remove these articles systematically. Certainly, publishers could have paid royalties to freelance writers, but the publishers elected not to do so, claiming that it was almost impossible to do and would not

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151. Roberto Zamparelli, *Copyright and Global Libraries: Going with the Flow of Technology*, FIRST MONDAY. *at* http://www.firstmonday.dk/issues/issue2_11/zamparelli/ (last visited Jan. 31, 2003).

152. Cullen, *supra* note 147.

153. *But see* The Short Story Page, *Missing Authors*, *at* http://www.jdedge.com/story/missing.htm (last visited Jan. 31, 2003).

154. *See* 17 U.S.C. § 203 (2000).

155. *Tasini*, 533 U.S. 483.

be cost effective. Further, each author would receive very little in the way of compensation.[156]

Suppose that the author has assigned the copyright to a publisher that has included the digital work in a database. When the copyright reverts to the author, if the author exercises the reversion right, then the database owner would have to renegotiate with the author for the right to continue to include the work in the database. Under these conditions, databases of digital objects may not have the stability that was once thought.

Transfers of copyright also raise issues. Normally, the transfer of copyright in a work does not affect authorship at all concerning the responsibility for digital works, thus it should not matter for bibliographic control. However, if the work is one that continues to be supplemented or changed, then the transfer might actually affect authorship if the updating is done by someone else.

C. *Alternative Methods for On-line Bibliographic Control*

There are several possible on-line alternatives to using the name of the author as the main entry for any catalog or index, but none of them works quite as well. For example, the title might become the main entry as is done when the author is unknown. Title searching in an on-line catalog or on Amazon.com is not easy, however. It is difficult because the title search requires one to use the full title with words in the exact order, and often, a user either does not know the full title or gets it slightly wrong, which results in an inability to find the item.

Keywords are very useful for searching databases of digital works, but they only identify entries that use those words or contain the words in the metatags. Thus, keyword searching is generally useless for identifying all of the works by an author. The strong point for keyword searching is that they are easy to conduct and one needs no subject heading guide or thesaurus, so it is easy for users to locate materials.

Another possible substitute for author as main entry is to somehow rely on the Digital Object Identifiers (DOIs). Today, publishers are adopting new alphanumeric systems known as DOIs to attach to digital information to serve as a tag of sorts in indexing. The DOI index would then be linked to the full-text of the work. The DOI will stay with the object regardless of whether the publisher sells the digital

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156. *See* Richard Wiggins. *The* Tasini *Decision: A Victory for No One*. Law Lib. Resource Exchange (Aug. 15. 2001). *at* http://www.llrx.com/features/tasini.htm (last visited Jan. 31. 2003).

work, but there are some concerns about DOIs since the content
providers would control not only the indexing, but also access to the
indexing and through the index, access to the digital object itself. Ac-
cess to the indexing would be available to users only through licensing
arrangements.[157] Thus, when a scholar wants to cite an article using a
DOI, it would become an inaccessible reference to anyone who does
not have access through a license to one of the publisher's systems in
the consortium. Neutral third party indexing and abstracting will be a
thing of the past, and one may not even be able to ascertain whether a
particular work even exists on the web.[158]

The final alternative exists only for archival collections. Because
manuscript and archival cataloging is done primarily at the collection
level, there most often exists an adjunct finding aid called a collection
register that is not incorporated in the cataloging record at all. This
collection register often includes a box and folder description that
gives far greater detail about the specifics of the content of the collec-
tion. The collection register may also include an index with locators
to the box and folder, and increasingly these are maintained in digital
form. For archival collections, however, author continues to be the
primary entry.[159]

V. CONCLUSION

It is difficult to predict how all of this will affect library users as they
increasingly rely on digital works. Will the user become a co-author
when she uses an electronic book and makes extensive notes on her
digital copy? Does she have any rights to further publish this work by
posting it on a website? Will these personally annotated versions be
valuable for library collections? Likely, this would depend on who is
doing the note taking. So, fame of an individual could make this an-
notated digital work valuable to a library, or perhaps even if the indi-
vidual has some sort of outstanding ability.

Authorship probably will continue to be the primary finding point
for materials in libraries and on the Internet. Authorship also has
other uses in libraries. For example, even in a library or archival col-

157. Kelly McCollum, *Publishers of On-Line Journals Plan to Link Millions of Science Foot-
notes*, CHRON. HIGHER EDUC. (Nov. 17, 1999), *at* http://chronicle.merit.edu/free/99/11/991111701t.
htm (last visited Jan. 31, 2003).

158. For a discussion of DOIs, see Laura N. Gasaway, *Values Conflict in the Digital Environ-
ment: Librarians Versus Copyright Holders*, 24(1) COLUM.-VLA J.L. & ARTS 115, nn.194-212
(2000).

159. ARLIS/NA Guidelines for Catalog Art Exhibition Publications, *Determining Main Entry
of an Exhibition Catalog*, *at* http://www.stanford.edu/%7Ekteel/guidelines_mainentry.html (last
visited Mar. 10, 2003).

lection that is not cataloged, books and materials may be arranged alphabetically by author name. This is especially true for collections of fiction, poetry, and the like. Of course, it works more successfully for smaller libraries than for larger ones, and there is even a classification scheme of sorts based on the author's last name, such as through the use of the Cutter Tables.

Whatever the model that is ultimately developed for expanded bibliographic control of digital works, it will be somewhat more complicated than in the analog environment. The relationship between the author and the work may also be different as large numbers of collaborators could be involved; and it may be much more difficult to determine when a work is complete or finished. Further, in the past there was considerable emphasis on what may be called the physical package (i.e., whether the work was in microform, on videotape, etc.), but in the future, it is likely that more attention should be paid to the intellectual content itself.[160] The current system of cataloging bundles together the idea of authorship and the nature of the contribution of that author. The first question that must be asked for digital works is, who is the person responsible for the intellectual content, and then, is it necessary to tell users what the nature of that relationship might be?[161] In other words, is it important to indicate whether the individual credited with authorship is the author, editor, or performer? In earlier times, catalogers used to provide "relators" such as "joint author," "editor," and the like, but all have been dropped today except in music cataloging. For the digital world, relators may need to be reinstated.

Authorship is a concept of considerable importance to society, for copyright law purposes and for libraries and their users. Libraries are examining at their practices and trying to ensure that digital works continue to be available and can be retrieved through excellent bibliographic control and indexing. The author's name remains the key.

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160. Tillett, *supra* note 14.
161. *Id.*