# AACR2 and the Card Catalog Two Models for Measuring

Nancy Scism, Joseph Rosenblum, and Teresa Calio

***Abstract:*** *In the fall of 1982 Guilford College undertook an examination of the impact of AACR2 on its card catalog. Two methods were employed: random sampling (Method I) and using Library of Congress lists of AACR2 entry and subject heading revisions (Method II). The results of these methods are examined and compared. The study concludes that small and medium-sized libraries will need to retype and relocate only a small percentage of cards if they are willing to wait until actual conflicts arise with new cards and if they will tolerate split files or interfiling without erasing or retyping. AACR2 should not therefore force the closing of their card catalogs.*

The coming of AACR2 has caused many libraries to examine their card catalogs to determine the impact of these new rules and to develop logical responses to them.[1] Of particular concern are the changes in form of entry; various studies have suggested conflicts ranging from 3 per cent to 30 per cent between AACR2 and earlier practices.[2] Because of this concern and the wide diversity of results obtained from other libraries' studies, Guilford College began its own investigation in the fall of 1982 to determine how AACR2 was affecting its card catalog. In addition to examining AACR2 entry forms, the cataloger undertook to examine correctness of filing position, based on *Library of Congress Filing Rules*, physical condition of the cards, and currency of subject headings, based on *Library of Congress Subject Headings*, 9th edition, and subsequent supplements. As part of this study, the investigators wished to establish a methodology that would allow other libraries to assess the likely effects of AACR2 on their catalogs. Consequently, two different methodologies were employed and the results compared.

**Nancy Scism is Cataloging Librarian at Guilford College. At the time of the study described in the article, Joseph Rosenblum was Reference Librarian, and Teresa Calio, a student assistant at Guilford College.**

**Method I — Random Sampling**

Guilford's is a two-way divided catalog, with author/title cards in one alphabetical sequence and subject cards in a second. Together these comprise 840 drawers—540 in the author/title catalog, 300 in the subject catalog—representing 194,212 volumes. To determine sample size, the investigators relied on M. Carl Drott's "Random Sampling: A Tool for Library Research."[3] Setting the tolerance factor at 5 per cent and the confidence interval at 90 per cent, the investigators found from Drott that 271 cards should be examined.[4] It was decided to take all 271 cards from the author/title catalog to examine conformity to AACR2 entry form. The first subject tracing on each card would then be used to determine currency of subject headings. Thus the final sample would be larger than the initial 271 cards and should provide even greater reliability. The sample was enlarged further by checking the added entries on the 271 cards pulled (excepting the title added entries) to determine how well these conformed to AACR2 standards.

**Results I**

The initial 271 cards taken from the author/title catalog fell into the following categories: personal names, 233 (86.0 per cent); titles, 21 (7.7 per cent); corporate entries, 17 (6.3 per cent). Only 5 of these cards were in poor physical condition; even these did not need replacement. Only 1.9 per cent of the cards were, therefore, of less than top quality. Seventeen cards were misfiled (6.3 per cent), and 5 contained typing errors (4 in headings, 1 in call number).

Of the 233 personal name entries, only 3 conflicted with AACR2 form, and these were sufficiently similar as not to affect filing order.[5]

> "Caldwell, Taylor, pseud." changed to "Caldwell, Taylor, 1900- "
>
> "Hugo, Victor Marie, comte, 1802-1885" changed to "Hugo, Victor, 1802-1885."

"Russell, Hon. Bertrand Arthur William, 1872-1970" changed to "Russell, Bertrand, 1872-1970."

There were no conflicts with the title cards and only two differences with the corporate entries: "Conference on church music, De Pauw University, 1927," would now be "Conference on church music (1927: De Pauw University)"; and "Research conference on education and cultural deprivation, University of Chicago, 1964" would now be "Research conference on education and cultural deprivation (1964: University of Chicago)." There was, then, a rate of difference of 1.8 per cent, and a rate of conflict of 1.1 per cent.[6] None of these differences would affect filing order.

The 176 non-title added entries on these original 271 cards consisted of 124 personal names (70.5 per cent), 41 corporate entries (23.3 per cent), and 11 series (6.3 per cent). The only conflicts found in this group involved corporate entries: 10 of the 41 different, and 7 would affect filing order.[7]

Of the original 271 cards, 251 had subject tracings; the first tracing on each of these cards was used to select the cards in the subject catalog that would be checked for filing accuracy and conformity to current Library of Congress subject headings. Twelve of the subject cards checked were misfiled (4.8 per cent),[8] and 5 contained typing errors (2.0 per cent). Fifty-four of the subject headings did not conform to current Library of Congress practice, giving a rate of difference of 21.5 per cent. Of these 54, only 10 would have affected filing (4.0 per cent). Table I summarizes the measured effects of AACR2 and the resulting recent Library of Congress subject heading changes on Guilford's card catalog.

**Method II — "Revised Headings List" and lists of "Significant Changes"**

The investigators next checked the author/title catalog against the "Revised Headings List for 1981" that appeared in *Cataloging Service Bulletin*, number 11 (Winter 1981). Of the 669 changes on that list, 165 (24.7 per cent) differed from the forms now in the Guilford catalog—87 (13.0 per cent) involved personal names, 78 affected corporate entries (11.7 per cent). The rate of filing differences was 13.8 per cent; 42 of the 87 personal name differences would have required changes in filing position (6.3 per cent), as would 56 of the corporate entry differences (8.4 per cent). Table II analyzes the types of differences and numbers of cards involved.

The subject catalog was then checked against the lists of "Significant Changes" for 1979, 1980, and 1981 that appeared in the supplements for 1980, 1981, and 1982 to the *Library of Congress Subject Headings* (9th edition). Of the 277 specific changes listed, 48 differed from Guilford's current headings, giving a rate of difference of 17.3 per cent. Thirty of these 47 would affect filing order, giving a rate of filing difference of 10.8 per cent.[9] Table III summarizes the types of differences between Guilford's current headings and the revised Library of Congress forms, and Table IV indicates the measured effects of AACR2 on Guilford's card catalog based on a comparison with Library of Congress lists.

TABLE I
**Measured effect of AACR2 on card catalog based on random sampling**

| | Percentage of total (# of cards) | rate of difference (# of differences) | rate of conflict (# of conflicts) | rate of filing conflict (# of filing differences) |
|---|---|---|---|---|
| Personal names of authors | 51.1% (357) | .8% (3) | .8% (3) | 0% |
| Titles | 3.0% (21) | 0% | 0% | 0% |
| Series | 1.6% | 0% | 0% | 0% |
| Corporate authors | 8.3% (58) | 20.7% (12) | 15.5% (9) | 12.1% (7) |
| Subjects | 36.0% (251) | 21.5% (54) | 8.0% (20) | 4.0% (10) |
| TOTAL | 100.0% (698) | 9.9% (69) | 4.6% (32) | 2.4% (17) |

TABLE II
**Types of conflicts with AACR2 entry form**

| Differences | % differences (#) | number of differences involving fewer than 10 cards (# of cards) | number of differences involving 10+ cards |
|---|---|---|---|
| Abbreviations | .3% (2) | 1 (1) | 1 |
| First word | 5.5% (37) | 37 (57) | — |
| Forename | 11.8% (79) | 51 (207) | 28 |
| Name change | 1.8% (12) | 10 (13) | 2 |
| Punctuation | .9% (6) | 6 (17) | — |
| Qualifier | 3.9% (26) | 24 (67) | 2 |
| Spelling | .4% (3) | 2 (7) | 1 |
| TOTAL | 24.7%(165) | 131 (369) | 34 |

## Discussion

Of the two methods employed, comparison with the Library of Congress lists (Method II) was easier. The two methods do, however, measure different things, hence the very different total percentages. Method I (random sampling) indicates the *percentage of cards in the catalog* that will be affected by AACR2. A library with a half-million cards might anticipate having twelve thousand cards affected by the new rules. Comparison of current entry forms with Library of Congress lists, on the other hand, measures the *percentage of AACR2 changes that will affect the catalog*—somewhere between one-fifth to one-quarter, according to our study. While both sets of figures are useful, the second method seems preferable for a quick study since it eliminates the need to examine cards that will not be affected—by far the majority—and allows the library to conduct its study at the same time it prepares for changes in a systematic way. Indeed, the library could conduct the study at the same time it began making changes; if results of the study warranted, it could modify its policy of alterations.

Together these measurements suggest that only a small percentage of cards will be affected, and only a small number of AACR2 changes will require changes in the catalog. This study should provide some reassurance to worried catalogers and library directors. The traditional hazards of faulty typing and misfiling would seem to be more cause for concern than any threats AACR2 poses to the viability of the card catalog in small to medium-sized libraries.

The magnitude of the problems raised by AACR2 is therefore not great enough to warrant closing the card catalog in even a medium-sized library. By waiting until actual conflicts arise instead of making changes in entry form simply because they differ from Library of Congress practice and by interfiling where changes are minor (e.g., "Aragon, Louis, 1897-" changed to "Aragon, 1897-," or "Dallas.Museum of Fine Art" changed to "Dallas Museum of Fine Art"), libraries can eliminate much of the work involved in converting to AACR2 format. Another possibility is lining out words no longer used (such as "Louis" in the old heading "Aragon, Louis, 1897-") or writ-

TABLE III
**Differences between LC and Guilford subject headings**

| Type | % differences (#) | # differences involving fewer than 10 cards (# cards involved) | # differences affecting 10+ cards |
|---|---|---|---|
| Spelling | .4% (1) | 1 (1) | — |
| Major word change | 6.1% (17) | 15 (54) | 2 |
| Minor word change | 3.2% (9) | 7 (20) | 2 |
| Qualifiers | 7.6% (21) | 10 (37) | 11 |
| TOTAL | 17.3% (48) | 33 (112) | 15 |

TABLE IV
**Measured effect of AACR2 on card catalog based on LC lists**

| | rate of difference (# of differences) | rate of filing differences (# of differences) |
|---|---|---|
| Personal names | 13.0% (87/669) | 6.3% (42/669) |
| Corporate entries | 11.7% (78/669) | 8.4% (56/669) |
| Subjects | 17.3% (48/277) | 10.8% (30/277) |
| TOTAL | 22.5% (213/946) | 13.5% (128/946) |

ing in minor additions (such as "[Germany]," which has been added to the old heading "Bavaria" to create "Bavaria [Germany]"). Such changes can be made at the card catalog and thus eliminate the need to pull cards, take them back to the technical services area for erasing and retyping, and refile then. As a way of compromising between neatness and efficiency, libraries might opt for pulling and retyping when fewer than ten cards, for example, are involved but making changes by hand when more than a given number are affected. In cases that involve major changes *and* large numbers of cards, such as the shift from "Russia" to "Soviet Union," libraries could settle for a split file with a raised guide card at the beginning of each of these entries. Such a system of cross-references is, according to John Rather, much less expensive than revising or even relocating old entries.[10] Alternatively, libraries could relocate and interfile without erasing. The old heading would be replaced with a SEE card, and a raised guide card at the new heading would indicate that the old and new headings are now interfiled (e.g., "Soviet Union and Russia interfiled here").

## Conclusion

Clearly, each library must decide for itself how it wishes to cope with AACR2. Clearly too, any implementation of AACR2 will be costly, especially during the initial phases when most of the alterations will need to be made. But if Guilford's study is reliable, small and medium-sized libraries should be able to conform to the new code without great inconvenience to themselves or their patrons.

### References


1. Recent studies include Johanna Hershey, "The Impact of the AACR2 on Cataloging at Johns Hopkins University," *Alternative Catalog Newsletter* 10 (February 1979):9-14; Arlene Taylor Dowell, "A Five-Year Projection of the Impact of the Rules for Form of Heading in the Anglo-American Cataloging Rules, Second Edition, upon Selected American Library Catalogs" (Ph.D. dissertation, University of North Carolina at Chapel Hill, 1981); John Hostage, "AACR2, OCLC, and the Card Catalog in the Medium-Sized Library," *Library Resources & Technical Services* 26 (January-March 1982):12-20.

2. The University of Minnesota reported 3 per cent; the University of Washington, 30 per cent. These figures, with others, appear in *AACR2 Implementation Studies*, SPEC Kit 68 (Washington, D.C.: Systems and Procedures Exchange Center, Association of Research Libraries, 1980).

3. *College and Research Libraries* 30 (March 1969):119-125.

4. Ken Walker, of Guilford's math faculty, arrived at the same figure using the formula $n=(1.645(\frac{1}{2})/.05)^2$.

5. If the first two words are identical in both old and new entry form, it is assumed that filing order will not be affected.

6. Hostage, 12, defines rate of difference as "headings that would be construed differently under AACR2" if a new card with that heading were added to the card catalog, i.e., potential conflict. Rate of conflict measures "AACR2 headings for names already in the catalog under a different form," i.e., actual conflict.

7. Of these ten entries, eight had already been changed by the time this study was undertaken. Two of those not changed would have affected filing order.

8. Six were found misfiled; another six were not found and assumed to be misfiled since, for practical purposes, all twelve were lost to the patron.

9. These figures would have been higher had Guilford not begun making changes before this study began. If none of the subject headings had been revised prior to this study, the rate of difference would have been 40.8 per cent (113/277) and the rate of filing difference 28.5 per cent (79/277).

10. In *The Future of the Card Catalog: Report of a Program Sponsored by the Association of Research Libraries* (Washington, D.C.: Association of Research Libraries, 1975), 14-17.