Online Access to Classification Numbers:
Quality Control in Canadian Bibliographic Databases

Lynne C. Howarth, Faculty of Library and Information Science, University of Toronto, Canada

Abstract: Subject access to information in online public access catalogues (OPACs) via class number browsing widens the bibliographic world-view, but imposes on classifiers an imperative for maintaining class number integrity. The paucity of empirical research into classification practices and their potential impact on Canadian bibliographic databases motivated a study of academic and public libraries. Responses to a survey were analysed and findings presented using descriptive statistics. Data suggested that, while current classification standards are maintained for new materials, retrospective materials are reclassified on an “ad hoc” basis. The lack of formal documented classification policies may, in some cases, be negatively impacting subject access to OPACs.

1. Introduction

Webster’s Third New International Dictionary of the English Language (1965) defines “quality” as (1) a degree of excellence, a grade or calibre, (2) a degree of conformance to a standard, or (3) an inherent or intrinsic excellence of character or type, a superiority in kind. The ability to gain subject access to information in online catalogues by means of classification number searching and call number or shelflisting browsing both widens and potentially limits client searches. The possibilities for classified subject access expands the bibliographic world-view, but also imposes on the subject cataloguer or classifier a more urgent imperative for maintaining a certain degree of excellence, a consistency of character, and a conformity to existing standards as represented by the particular classification system employed. The continuing impetus to electronic exchange of bibliographic data, locally, nationally, and internationally, ensures that classification choices made in-house have the potential to be adopted and integrated elsewhere. Remote access via the Internet to an increasing selection of participant online public access catalogues (OPACs) makes the bibliographic record even more “public”, and further renders as essential to identification and retrieval of material the accuracy, integrity, and currency of class notation.

If one considers “quality” from the perspective of conformity to a standard, then the “quality” of classification found in online public access catalogues may vary widely depending on policies or practices adhered to in individual bibliographic
agencies. Inconsistency in subject representation through a class number may result from such institutional practices as (1) "mark and park" (acceptance of call numbers assigned by another bibliographic agency), (2) selective reclassification or nonrevision of call numbers when class numbers are revised, (3) arbitrary shortening or simplification of classification numbers to meet the needs of in-house automated systems, online public access catalogue displays, printing capabilities, etc., or (4) call number assignment that emphasizes local needs — such as place over topic — in preference to general practice — classifying topic over place. As Hill notes, variability in cataloguing agency approaches to call number assignment, "... contributes to inexactitude in classification, which is a problem for the quality of class number retrieval." (Hill 1984:20)

2. Rationale for the Study

While the existence of varying classification policies and practices is acknowledged, there is little empirical research documenting the nature, extent, and possible implications of those differences. Surveys conducted by Klossner (1985), Nichols and Younger (1986), and Howarth (1992) focused in large part on the adoption and integration of changes to classification schedules. These studies, while useful to an understanding of classification policy and practice, are limited both in coverage (being specific to Wisconsin, California, and Ontario [Canada], respectively) and to the extent that online access to class numbers is not a consideration. The present research was designed, therefore, to assess how approaches to classification in Canadian academic and public libraries may impact (1) the quality of call numbers and (2) subject retrieval through online access to call numbers.

3. Methodology

The national study involved 126 libraries with collection sizes ranging from fewer than 100,000 volumes to over one million volumes. The eighty-six respondents (68.25% rate of return) answered questions about (1) which classification system — either Library of Congress (LCC) or Dewey Decimal (DDC) — was applied, (2) sources of, and destinations for bibliographic records, (3) specific approaches to assigning class numbers, (4) policies and practices concerning changes, revisions, or additions to the classification scheme being used, and (5) factors influencing decisions to reclassify materials. While the researcher was interested in the nature and content of the replies, overall, differences according to types of library (academic versus public), size of library (based on collection sizes varying from less than 100,000 volumes to over one million volumes), classification system used (LCC versus DDC), and the existence of a formal, documented classification policy were particularly analysed. To the extent that the research explored an area of Canadian classification practice that had not previously been investigated, and
attempted to establish a baseline for future empirical study, it was hypothesis-generating rather than hypothesis testing. Data were analysed (using Statistical Analysis Software [SAS]) and findings presented using descriptive statistics.

4. Analysis and Findings

While the questionnaire focused on five key areas (listed above), the scope of this paper was limited to those issues of particular relevance to the integrity of and access to classification numbers in Canadian bibliographic databases as embodied in online public access catalogues.

4.1 Classification System Preference

All responding public libraries (n = 58) and one academic library used the 20th edition of the Dewey Decimal Classification (DDC). Twenty-seven of twenty-eight academic libraries applied Library of Congress Classification (LCC). Classification preferences were consistent with findings from studies cited previously, where public libraries generally favoured DDC and academic libraries preferred LCC. The exception noted in this present survey derived from a College of Education where DDC might be chosen to emulate a school library environment.

4.2 Destinations for New Bibliographic Records

Survey participants were asked in what type(s) of catalogue(s) bibliographic records for items new to the collection were filed. While choices included card, microform, OPAC, book, CD-ROM, or “other” (specified) catalogues, of particular interest to the present research was the number of respondents maintaining OPACs. Nearly all academic (27 of 28, or 96.43%), and a majority of public (45 of 58, or 77.59%) libraries filed bibliographic records for items new to the collection in an OPAC, for a national total of seventy-two of eighty-six respondents (83.72%). Findings may indicate that Canadian public and academic libraries have largely converted from manual to online catalogues. The almost complete reliance on OPACs by academic libraries has implications for the availability of bibliographic records via remote or Internet access, and underlines the need for attention to the quality and integrity of records now derivable beyond the local level.

4.3 Adoption of Revisions to Classification Schedules

The questionnaire inquired as to whether revisions to respective classification schemes were adopted “in full”, “in part”, “or not at all”. Data from respondents incorporating changes were cross-tabulated with type of catalogue maintained for items new to the collection. Of those with records in OPACs, there was almost full compliance with adoption of classification revision. Twenty-five of twenty-six
academic libraries (96.15%) adopting revisions “in full”, or “in part” were maintaining OPACs. A similar proportion of public libraries (42 of 43, or 97.67%) did the same. These data may indicate that Canadian academic and public libraries with OPACs are almost universally (97.1%) keeping pace with changes to DDC and LCC schedules, respectively, suggesting that call number access to new materials reflects consistent adherence to current standards. It was not possible to determine whether currency with revisions was intended by those maintaining OPACs because they were aware of the implications of database integrity vis-a-vis class numbers. A question about in-house system capabilities for searching call numbers in the OPAC might have helped to explore the issue of motive for maintaining classification standards, but was not included in the survey.

4.4 Resident Catalogues for Retrospective Materials

While the amount of readily-available derived cataloguing copy might tend to facilitate adoption of ongoing revisions to classification schedules contained in national cataloguing source records, the limitation of resources available to libraries to reclassify items already in the collection under a now superseded call number might discourage full-scale revision. With this in mind, respondents were asked to indicate where records for items already in the collection (as opposed to new to the collection) resided. The question was further intended to determine the nature and extent of split catalogues in the case of incomplete retrospective conversion from manual to online systems. While choices again ranged from card, to microform, to OPAC, to book, to CD-ROM, or „other (specified)“ catalogues, OPACs were the primary repository for retrospective records. All but one academic library (27 of 28, or 96.43%) and forty-three of fifty-eight (74.14%) public libraries contributed to the national total of 81.40% (n = 70), suggesting that, at least in Canadian public libraries, conversion to online catalogues is not yet complete. Academic libraries, in contrast, have almost uniformly converted to OPACs as repositories for both new and retrospective materials. If this is the case, how much reclassification has been done to ensure that retrospective materials conform to current classification standards?

4.5 Reclassification of Materials and OPAC Maintenance

In order to assess the relative integrity of class numbers in Canadian academic and public library OPACs, respondents that had admitted to adopting revisions to classification schedules „in full“ or „in part“ were additionally asked if they also reclassified materials already in the collection. As Table 1 illustrates, among this group, commitment to reclassification was less strong than to adoption of revisions. Large public libraries (those with collection sizes in excess of 750,000 volumes) appeared marginally more inclined to reclassify than were their academic library counterparts. Whether this suggests on the part of academic libraries a
greater willingness to accept two or more class numbers for materials in a subject area that has been reclassed by LCC, or reflects a paucity of resources to reclassify, or is otherwise attributable was not determined by the survey. Nonetheless, users searching academic library OPACs, locally, remotely, or via the Internet, and relying on call number access, may not be aware that two or more numbers exist for materials on the same subject. While the degree or importance of this potential subject access problem cannot be determined, it must nonetheless be acknowledged, and commitment to class number integrity considered.

4.6 Approaches to and Degree of Reclassification

Having determined the extent to which reclassification was done, the survey asked under what circumstances and to what degree existing class numbers were revised. Thirty-one of the eighty-six national respondents (total 36.05%, where 42.86 = academic libraries; 32.76% = public libraries) indicated that reclassification was done on a "case-by-case basis". The remaining libraries in each category type were almost equally distributed across responses, including: "all titles reclassified" (10.46%); "only previous editions reclassified" (9.3%); "only added copies reclassified" (6.98%); "reclassify if a certain number of titles (e.g., 15 or fewer) are involved" (10.46%); "only MARC records reclassified" (3.49%).

4.7 Formal Documented Classification Policies

If reclassification was done primarily on a "case-by-case basis", were guidelines provided? Table 2 lists responses to the question concerning the existence of a formal documented classification policy. Public libraries were almost evenly split on the question, with the largest agencies (collections in excess of one million volumes) less likely than their counterparts with smaller collections to have documented policies. Similarly, while one might expect academic libraries, and particularly those with larger collection sizes (over 500,000 volumes) to maintain formal policies, a surprisingly small number (n = 9 of 28) and percentage (32.14%) of academic libraries had documented guidelines. This may pertain, in part, to the reality of using an essentially enumerative classification (LCC) largely derived from the national source agency (Library of Congress), but does not necessarily hold relative to the question of reclassification practice. Further, it may be speculated that in the absence of documented policies, highly variable ad-hoc decisions prevail, and such inconsistency of application may detract from the integrity and current-to-standard quality of class numbers in online databases. Subject access in this environment might perhaps be compromised to some degree.
5. Conclusions

The findings present a picture of the nature and quality of classification in online bibliographic databases maintained by medium- to large-sized public and academic libraries in Canada, and indicate some potential problems for subject retrieval by class number related to those institutional policies and practices. Ninety-seven percent of all libraries that maintain OPACs adopt revisions to classification schedules in whole or in part suggesting that current classification standards are largely supported. Just over fifty-five percent of Canadian public and academic libraries that maintain OPACs reclassify material already in the collection when a classification number changes. Such reclassification mostly occurs on a case-by-case basis. Only forty-four percent of all libraries maintain a formal, documented classification policy that might advise on such aspects as when to reclassify.

From the data it may be interpreted that, for Canadian academic and public library OPAC users, materials that are new to the collection are classified to current standards, but subject access via classification number to materials already in the collection may be more haphazard if numbers have changed. Approaches to reclassification are so variable as to potentially negatively impact subject access through an OPAC, whether locally or remotely.

While the research is limited geographically, it reports on some approaches to classification in a constituent and bibliographically active member of the Anglo-American cataloguing community. While further study would be required to substantiate this, practices in other countries of that community may be similar. In any event, the lessons to be learned from problems of quality control in existing bibliographic databases may be useful to the evolution and improvement of future subject access systems.

References


Klossner, M. (1985). Reported by Berman, S. Technicalities 5 (6), pp. 14-15. [This is part of a four-part series on this survey. The other sections of the report are included in Berman’s “Consumer Beware“ columns in Technicalities 5 (8), pp. 7-9; 5 (10), pp. 13-15; 5 (12), pp. 9-11.]


### TABLE I

<table>
<thead>
<tr>
<th>Collection Size (# of volumes)</th>
<th>Academic Library # and %</th>
<th>Public Library # and %</th>
<th>Total by Collection Size # and %</th>
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</thead>
<tbody>
<tr>
<td>&lt; 100,000</td>
<td>1 (1) (100%)</td>
<td>0 (0)</td>
<td>1 (1) (100%)</td>
</tr>
<tr>
<td>100,001 - 250,000</td>
<td>3 (3) (100%)</td>
<td>6 (15) (40%)</td>
<td>9 (18) (50%)</td>
</tr>
<tr>
<td>250,001 - 500,000</td>
<td>1 (4) (25%)</td>
<td>7 (12) (58.33%)</td>
<td>8 (16) (50%)</td>
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<tr>
<td>500,001 - 750,000</td>
<td>2 (2) (100%)</td>
<td>2 (5) (40%)</td>
<td>4 (7) (57.14%)</td>
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<tr>
<td>750,001 - 1,000,000</td>
<td>1 (3) (33.33%)</td>
<td>1 (2) (50%)</td>
<td>2 (5) (40%)</td>
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<td>&gt; 1,000,000</td>
<td>8 (13) (61.54%)</td>
<td>6 (8) (75%)</td>
<td>14 (21) (66.67%)</td>
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<td>Total by Type of Library</td>
<td>16 (26) (61.54%)</td>
<td>22 (42) (52.38%)</td>
<td>38 (68) (55.88%)</td>
</tr>
</tbody>
</table>

**NOTE:** Columns list number of responses out of total responses () for that size of collection (maintaining OPACs) and percentage relative to totals by collection size.
<table>
<thead>
<tr>
<th>Collection Size (# of volumes)</th>
<th>Academic Library # and %</th>
<th>Public Library # and %</th>
<th>Total by Collection Size # and %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 100,000</td>
<td>1 (1) (100%)</td>
<td>1 (2) (50%)</td>
<td>2 (3) (66.67%)</td>
</tr>
<tr>
<td>100,001 - 250,000</td>
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<td>10 (21) (47.62%)</td>
<td>10 (24) (41.67%)</td>
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<td>250,001 - 500,000</td>
<td>1 (4) (25%)</td>
<td>8 (15) (53.33%)</td>
<td>9 (19) (47.37%)</td>
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<td>500,001 - 750,000</td>
<td>0 (3)</td>
<td>2 (6) (33.33%)</td>
<td>2 (9) (22.22%)</td>
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<td>&gt; 1,000,000</td>
<td>7 (14) (50%)</td>
<td>4 (9) (44.44%)</td>
<td>11 (23) (47.83%)</td>
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<tr>
<td>Total by Type of Library</td>
<td>9 (28) (32.14%)</td>
<td>28 (57) (49.12%)</td>
<td>37 (85) (43.53%)</td>
</tr>
</tbody>
</table>

NOTE: Columns list number of responses out of total responses (1) for that size of collection and percentage relative to totals by collection size. One "non response" received from a public library.