Notes on Operations

If You Buy It, Will They Use It?

A Case Study on the Use of *Classification Web*

Anna M. Ferris

This paper presents a study conducted at the University of Colorado at Boulder (CU-Boulder) to assess the extent to which its catalogers were using Classification Web *(Class Web), the subscription-based, online cataloging documentation resource provided by the Library of Congress. In addition, this paper will explore assumptions made by management regarding CU-Boulder catalogers' use of the product, possible reasons for the lower-than-expected use, and recommendations for promoting a more efficient and cost-effective use of Class Web at other institutions similar to CU-Boulder.*

Catalogers at the University Libraries of the University of Colorado at Boulder (CU-Boulder) began using Classification Web (Class Web) in June 2002, shortly after it was introduced by the Cataloging Distribution Service (CDS) of the Library of Congress (LC).[1] At that time, Class Web was publicized as the first LC resource to offer cataloging documentation via the Web. Today, it is used by working catalogers throughout the world to formulate classification numbers and subject headings according to the standards and rules published in the Library of Congress Classification (LCC) and the Library of Congress Subject Headings (LCSH).[2]

At CU-Boulder, catalogers have come to depend on Class Web for various reasons. The most important is the convenience it offers catalogers, who can now access both LCC and LCSH from their personal workstations. Other noteworthy advantages to using the tool include:

- a correlation feature that links both resources;
- automatic calculation of classification numbers;
- a correlation (added July 1, 2004) between Dewey Decimal Classification numbers and their corresponding LCC numbers and LCSH entries;
- files that are updated by LC on a weekly basis;
- links to other libraries' catalogs (such as LC's Online Public Access Catalog), including the ability to customize a link to the user's own catalog; and
- software features that allow an individual user to limit searches to specific portions of files that are most pertinent to his or her needs.

The first desktop resources for catalogers offered by CDS, Cataloger's Desktop (Desktop) and Classification Plus (Class Plus), were introduced at CU-Boulder in 2001, although they entered the market in 1994 and 1996 respectively. In April 2002, CDS announced that it would be discontinuing Class Plus in favor of Class Web, a new Web interface for accessing the same LC classification and subject headings data. Based on product descriptions at the time, management at CU-Boulder assumed that the 26 catalogers throughout the University Libraries would be able to make a smooth transition from Class Plus to Class Web. Accordingly, the heads of

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CU-Boulder's cataloging, acquisition, and systems departments decided to switch the Class Plus subscription to Class Web and to keep CU-Boulder's user agreement at 24 concurrent users at a total cost of $1,500 annually.

Because Class Web was viewed as simply an enhanced version of Class Plus, and many catalogers were already knowledgeable about how to use Class Plus, department heads did not think that offering specialized training for Class Web was important. Catalogers were simply referred to the tutorial built into Class Web to help them make the transition between the two products. The decisions made during the switchover to Class Web regarding the number of concurrent users, the type of transition, and training were based on assumptions that were thought to be valid for the specific needs of the cataloging department at that particular moment. The validity of these assumptions, a users' survey, and a statistical analysis of Class Web usage are examined in this paper.

Literature Review

The cataloging literature includes several papers that address the importance of providing catalogers with access to cataloging resources in electronic format. Hine investigated the impact that early automation had on increasing productivity and quality of work and stressed the need for further research on the subject of automated workstations for professional catalogers.[3] Brisson took up this charge, and traced the historical development and foundations of the cataloger's personal workstation, citing Desktop as "only the beginning" of the types of tools being made available for catalogers.[4] The impact of automation itself on routine cataloging operations and on working catalogers, in particular, was the subject of papers dealing with the process of change from a perspective of human reactions (Fiste and Thornton) and behavioral psychology (Cooper).[5]

Other papers refer specifically to the LC cataloging tools. Basic reviews have been written about Desktop (Leazer) and Class Web (Creamer, Selden).[6] Johnson evaluated online resources available to serials catalogers and briefly touched on the applicability of Desktop for their purposes.[7] Leroy and Thomas provided a similar review of Web-based resources for catalogers in general, and included short summaries on Desktop and Class Web.[8] Simpson and Williams went beyond the cursory overviews and provided an in-depth analysis of the impact that Desktop had on cataloging operations at 159 academic and public libraries.[9]

No comparable in-depth research has been produced to date on the subject of Class Web. This paper seeks partly to rectify this situation by providing a detailed assessment of how Class Web is being used by catalogers at CU-Boulder.

Exploring Usage of Class Web at CU-Boulder

Although no formal evaluations were conducted, a year and a half after switching to Class Web, catalogers at CU-Boulder appeared satisfied with the convenience provided by this new, Web-based product. As Class Web had apparently become a valuable resource for CU-Boulder's catalogers, and because they appeared to have adapted to it with little difficulty, the author speculated that the same product could also prove to be a useful tool for noncatalogers. Would it be helpful, for example, for reference personnel to have direct access to LCSH at the reference desk? Before developing a program to introduce Class Web to the more than 20 members of the reference department, the author decided to test her assumptions about CU-Boulder's existing use of Class Web by gathering data. These statistics would establish a baseline level of use by CU-Boulder catalogers and could then be compared to later usage figures once reference personnel began using Class Web for their own purposes. CDS expressed interest in the study and agreed to supply summary data reports.

Upon request (on a case-by-case basis), CDS is able to produce a summary data report that provides:

- date;
- number of maximum, concurrent users logged on to Class Web for that date at a particular time;
- count of how many records were viewed each time the next or previous buttons were pressed during a twenty-four-hour period per individual cataloger; and
- count of the total number of MARC records displayed per user.

The author requested reports for four consecutive months, from November 2003 through February 2004, which recorded the number of maximum concurrent users logged on to Class Web during that time.

The summary reports, received from CDS on February 23, 2004, showed a lower-than-expected use of Class Web—out of a total of 26 catalogers who had access to Class Web, only 3 or 4 were logged on at a time. Figures 1–4 illustrate Class Web use for each of the four months, showing the maximum number of simultaneous users that were reported for each day. Only days for which there was use are shown. Average use per day was also calculated.

To gain an understanding of the meaning of these baseline statistics, each cataloger was surveyed regarding Class Web use. The survey, appendix A, was sent to each cataloger by e-mail on April 12, 2004. (The

survey also included questions about how catalogers use of Class Web and other resources to assign classification numbers and subject headings; these data are not reported in this paper and the questions are not present in appendix A.)

Survey Results

Of the 26 surveys that were sent, 23 (88 percent) were returned. Table 1 summarizes the findings regarding general Class Web and Class Plus use.

The data reveal two significant points. First, while Class Web was available to all 26 catalogers, and management had presumed that Class Web was being used by them all, 6 copy catalogers (26 percent) did not use the product, and 5 of these copy catalogers (22 percent) had not used Class Plus before the switch. A distinction should be made between the terms *use, non-use,* and *non-adoption.* Use refers to the act of consciously choosing to consult Class Web in order to search for information pertaining to LCC or LCSH; non-use refers to the interval during which a cataloger who usually consults Class Web is not using the product; non-adoption refers to the conscious choice by a cataloger not to consult the product. The fact that one copy cataloger used Class Plus but chose not to adopt Class Web is of questionable significance because this cataloger reported extremely low use of Class Plus—less than once a week. (See frequency of use data in table 2.)

Second, the distribution between copy and original catalogers shows that the percentage of Class Web users among the original catalogers was higher (100 percent) than among the copy catalogers (60 percent). This high percentage is almost certainly attributable to the fact that CU-Boulder's original catalogers are active participants in the Program for Cooperative Cataloging and are therefore necessarily adherents of the cataloging standards and guidelines promoted by LC.

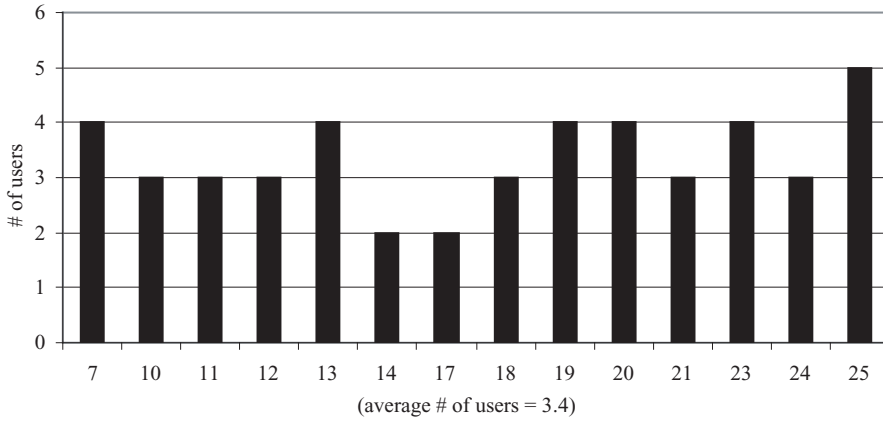

Figure 1. November 2003 Class Web use (14 days)

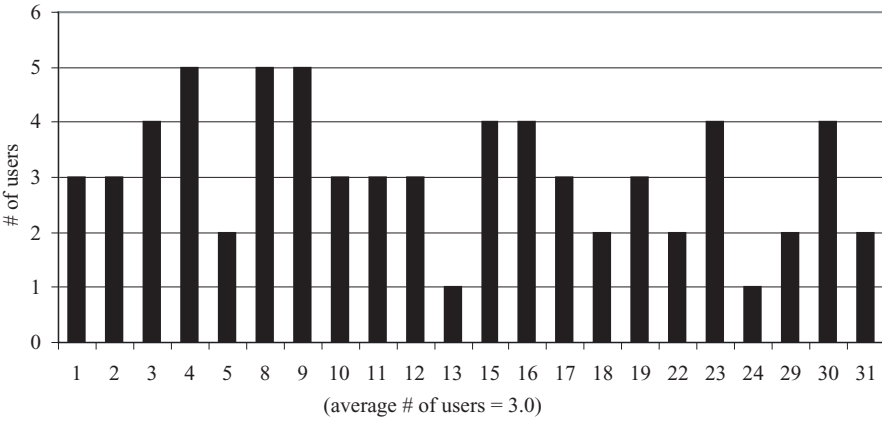

Figure 2. December 2003 Class Web use (22 days)

Table 1. General usage

	Copy catalogers		Original catalogers		Total	
Respondents	**%**	**No.**	**%**	**No.**	**%**	**No.**
Use Class Web	39	9	35	8	74	17
Do not use Class Web	26	6	0	0	26	6
Use Class Plus	43	10	35	8	78	18
Do not use Class Plus	22	5	0	0	22	5
Total respondents	**65**	**15**	**35**	**8**	**100**	**23**

The frequency with which catalogers logged on to both Class Web and Class Plus was also explored in the survey. Table 2 provides a

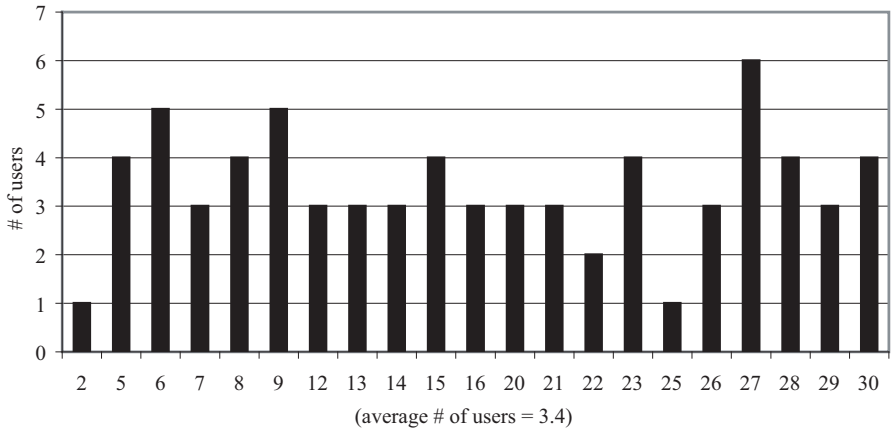

Figure 3. January 2004 Class Web use (21 days)

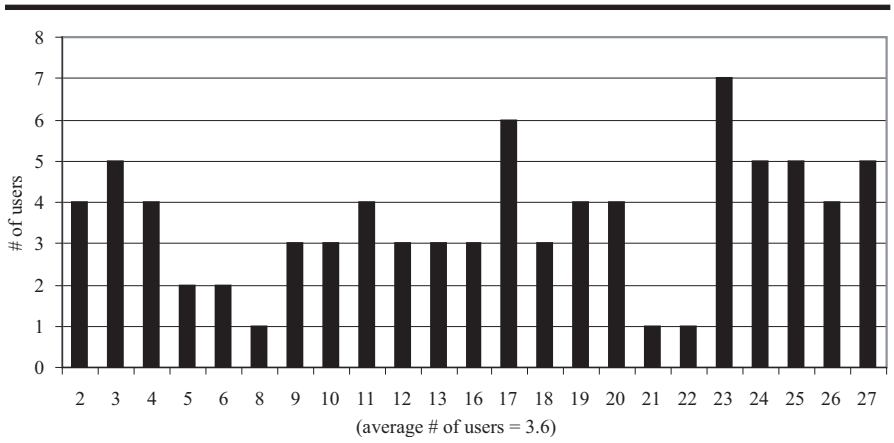

Figure 4. February 2004 Class Web use (23 days)

breakdown of how often users logged on to each product.

Possible Explanations for Low Class Web Usage at CU-Boulder

While there are a number of reasons that could explain the lower-than-expected usage statistics at CU-Boulder, low use or non-adoption do not appear to be the result of any deficiencies or issues of quality connected to the LC product itself. Other factors that might contribute to lower-than-expected usage may include:

- No formal training was conducted for Class Web as had been done for Class Plus.
- Copy catalogers do not need to use Class Web as frequently as original catalogers because call numbers and subject headings are already provided in most LC and member-copy records.
- Other methods of verifying call number and subject heading data are available.
- Catalogers may be experiencing computer access problems.
- Original catalogers may be away from cataloging tasks frequently enough (at conferences, on research leave, and so on) that this may have an impact on the frequency with which they access Class Web.
- The structure of the tool may lead catalogers to log on and off in reaction to a particular query (or set of queries) rather than to leave a session running.
- Some catalogers may be typical *late adopters*; that is, they are comfortable with their current routines and do not immediately appreciate the advantage of adopting a new technology. Other catalogers may be selectively technophobic—reluctant to shift over to an electronic resource when the paper version remains readily available. This seems a likely explanation for the non-adoption of either Class Plus or Class Web.

CU-Boulder's case is likely not unique. In any library, the level of Class Web use may be influenced by some combination of the previously mentioned factors. While many of these factors deserve further investigation, the author chose to concentrate on one in particular—lack of training—as that was a factor that could be corrected. As a result, a formal training program was developed in the hope that it would increase the use of Class Web.

Effects of Formal Training for Class Web

To test whether the low use was attributable to a lack of training, a hands-on introduction to Class Web was presented on April 13, 2004, at a meeting of all catalogers. As a result of preparing for and giving the demonstration, several things became clear. The two products (Class Web and Class Plus) were significantly different. Despite offering the same content as Class Plus, Class Web's browser interface

and other enhancements made it a superior product. Although they were encouraged to do so, many catalogers did not make use of the tutorial or the trial account to familiarize themselves with the updated product. Catalogers appreciated having someone demonstrate the product to them. Logging on and off was not an issue—the product does log users off after thirty minutes of inactivity.

In order to assess whether formal training had had a noticeable impact on use, the author requested two additional summary data reports from CDS for the months of April and November 2004. (Because November 2003 was already available, at the time of this writing, November 2004 would be the first summary report to enable a comparison across years.) The charts corresponding to the April and November 2004 reports are shown in figures 5 and 6.

Data Analysis

Microsoft Excel 2003 was used for the statistical analysis of the summary data reports. The descriptive statistics following are presented in the chronological order in which the reports were requested from CDS: (1) the initial batch of reports from November 2003 through February 2004; (2) April 2004, for the before and after training figures; and (3) November 2004, the first report providing annual totals. Appendix B provides monthly lists of concurrent users taken from these reports.

November 2003 through February 2004

Each data point corresponds to the number of maximum users logged on to Class Web during 14 days in November, 22 days in December, 21 days in January, and 23 days in February (see figures 1–4). Shaded cells are used in appendix B to show weekends and holidays; weekends account for half of the 12 days that only 1 user was logged on to the system at a time. The central tendency in the distribution of data points, and as seen in the four mean totals, is spread between 3 and 4 users per day.

Table 2. Frequency of use

	Copy catalogers		Original catalogers	
Frequency of use	**Class Web**	**Class Plus**	**Class Web**	**Class Plus**
More than once a day	6	5	3	3
Once a day	0	0	1	0
2–3 times a day	1	0	4	5
Less than once a week	2	5	0	0

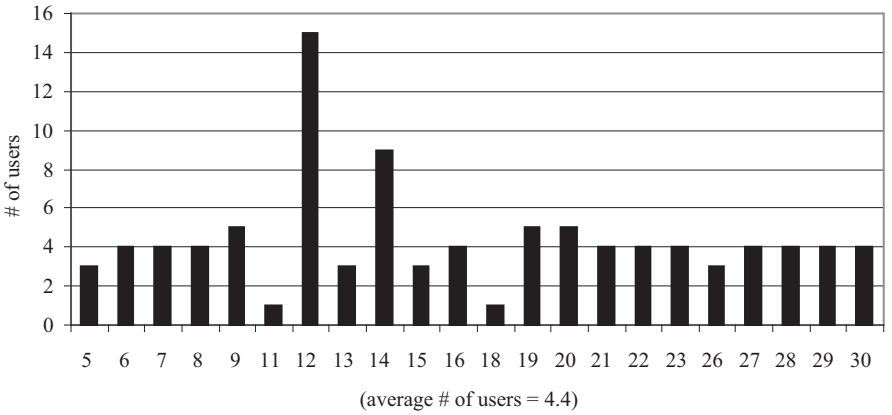

Figure 5. April 2004 Class Web use (22 days)

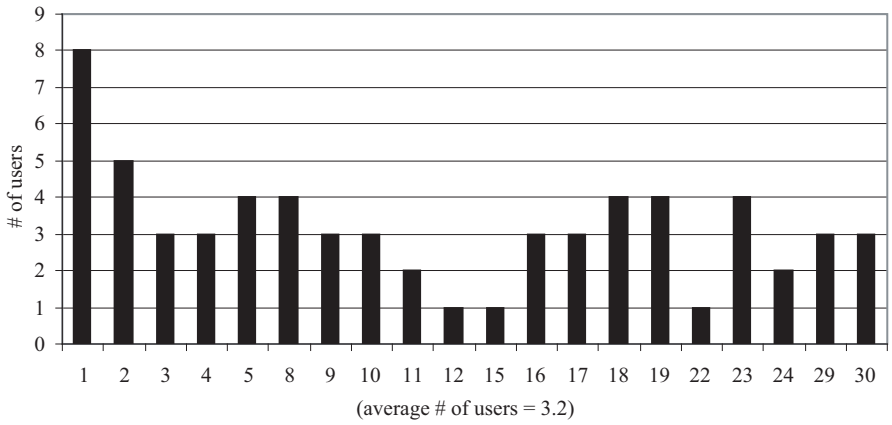

Figure 6. November 2004 Class Web use (20 days)

April 2004: Before and after Training

The next set of figures, taken from the summary data report for April 2004 (see figure 5), includes the training date (marked with an asterisk in appendix B). Background use

remained between 3 and 5 users, but significantly higher use was reported on the days immediately preceding and following April 13, the day training occurred. Fifteen users logged on to the system the day before training, and 9 users logged on the day after training. The high use on these two days can be ascribed to the fact that catalogers were taking a closer look at the product. Despite these two days of increased use, the mean total of users remains at a low level (4.409), and the standard deviation is 2.823 from the mean. When the anomalous numbers (15 and 9) are removed from the calculations, the mean total for April goes down to 3.65, and the standard deviation drops to 1.089—closer to the pattern of usage seen in the November 2003 through February 2004 totals.

November 2004

As mentioned earlier, the first set of comparative across-year statistics received from CDS were for the month of November 2004 (see figure 6). These statistics show a decrease in the average number of users (3.2) in 2004 as compared to the average number of users (3.4) during the same month the previous year. Even with six more working days in 2004, the average number of users is still lower than in 2003. Given the unforeseen results of this comparison between the 2003 and 2004 mean totals of Class Web users, a t-test analysis was conducted to test the significance of the difference between the two totals.

T-Test Results

The main reason for performing a t-test (in this case, a paired t-test, as the same subjects were involved in both monthly reports) was to test the likelihood of whether the author's hypothesis, relating low Class Web usage to a lack of training, was a valid one. The supposition was that once catalogers were offered formal training, use of the product (and consequently the statistics) would increase.

The null hypothesis (difference is equal to 0) presumed little or no change between the levels of use before and after training. The alternative hypothesis (difference is not equal to 0) presumed a significant change in the level of use after training. The determination of a statistically significant difference between the two means is reported as a p-value. Using the mean totals of 3.4 (November 2003) and 3.2 (November 2004), the calculation resulted in a p-value of .709672. Typically, if the p-value is greater than 0.05, the conclusion is that no significant difference exists. Inasmuch as .709672 is greater than 0.05, the null hypothesis must be accepted—no statistically significant difference exists between the mean totals for November 2003 and 2004. In other words, there is insufficient evidence to conclude that formal training helped increase the use of Class Web, given that the pattern of use after training was comparatively unchanged from what the pattern had been prior to the training.

Discussion

Some important issues were uncovered by exploring Class Web use through an in-depth analysis of summary data reports and a usage survey for catalogers. First, Class Web use (an average of 3 to 5 maximum users at any one time) at CU-Boulder was consistently lower than expected. This was perceived as low because access to the resource had been set to accommodate as many as 24 concurrent users. Second, formal training did not have a significant effect on whether or not catalogers chose to use the product.

Two additional issues were highlighted by the usage survey. The first is that managers should not assume that every cataloger will need or choose to use Class Web. At CU-Boulder, 26 percent of the catalogers surveyed (6 out of 23) did not use the product. Additionally, the extent to which catalogers use Class Web may depend upon the job responsibilities held by those catalogers; that is, original catalogers may need to use Class Web more extensively than copy catalogers. Anecdotal evidence suggests that senior catalogers at CU-Boulder made more use of paper documentation in the past than they make use of electronic resources today, but this difference appears to be because their current job responsibilities require them to focus more on managerial duties and less on cataloging or authority work functions than previously had been the case. Many observed that catalogers would use the electronic resources as much as they had used the paper cataloging tools (and perhaps more), if their job responsibilities returned to what they had been in the past.

While the results of this study were not what management at CU-Boulder had expected to find in regards to user numbers and the transition from one product to the other, its significance may well be appreciated by other institutions that are currently subscribed—or are planning to subscribe—to Class Web. The author hopes that addressing these issues will lead to a more efficient and cost-effective use of this product.

Conclusion

The case study presented in this paper has implications for use of Class Web at CU-Boulder as well as at other institutions. At CU-Boulder, the cataloging department will be reassessing its user agreement for 24 concurrent users. A more reasonable access level will need to be determined based on the data collected. A complicating factor will be whether Class Web is made available to noncataloging personnel. If that is the case, reducing access to 3 or 4 concurrent users would not be wise. Formal

training, accompanied by adequate documentation, will continue to be provided for new catalogers. Despite the formal training's lack of impact on the level of Class Web use, survey results showed that catalogers did appreciate the training, and that it made a difference in the effectiveness of catalogers' use of the tool. The benefits of using Class Web will be reinforced from time to time by reporting on special situations or examples in which the product can be especially helpful.

The original impetus for this study was to explore the possibility of extending the utility of Class Web beyond catalogers to noncataloging personnel. A study of current use among catalogers was considered a necessary first step in determining training approaches and estimating possible levels of use by public services personnel. While this study may suggest, based on the moderate use of Class Web made by catalogers, that expectations for adoption outside cataloging should be modest, it revealed no obstacles to providing appropriate training and introducing Class Web to other units within the library. Accordingly, a formal presentation is being developed for personnel outside of technical services, such as reference staff and librarians, bibliographers, and library workers at branch libraries, in order to demonstrate the ways in which Class Web can be beneficial to them. A follow-up study of potential and actual use is also being designed.

Broader implications exist for institutions similar to CU-Boulder. The following recommendations will address some of these issues. First-time subscribers should make sure that appropriate concurrent use is ordered. As this study shows, matching concurrent user access to the number of potential Class Web users at an institution is not necessary. Even at LC, the ratio of Class Web users to concurrent user access is 4:1 (roughly 644 potential users to 161 concurrent users) according to Cheryl C. Cook, Class Web product manager at the time of this writing.[10] First-time subscribers should consider ordering minimal access at first, and then adding more access as the need arises. At institutions that are already subscribed to Class Web, management should be mindful of how the product is received and used by cataloging personnel—or, perhaps, not used. If possible, use should be monitored. This is easier to do with Web-based products from which statistics are readily extracted. Statistics are not as easily obtained from CD-ROM products unless specific parameters are set by systems personnel beforehand.

Areas meriting further investigation were revealed through the course of this analysis. How do catalogers use Class Web? What motivates them to turn to Class Web rather than to another resource? Despite prompting, why do catalogers tend not to make use of tutorials or trial accounts when they are available? A follow-up survey of nonusers might help uncover the reasons behind non-adoption decisions and low usage in general. Lastly, a detailed analysis of *Cataloger's Desktop* use would be a welcome addition to the literature, particularly as the product has recently undergone a similar shift from CD-ROM to Web format.

This study was prompted by an interest in expanding the use of Class Web to other noncataloging units. Many tools developed exclusively for catalogers have come to be used outside the cataloging department (for example, the LCSH printed editions). Some have been transformed for wider use (the OCLC database, once seen only by catalogers, is today known as WorldCat and searched directly by the public). When cataloging tools were in paper format and expensive, consulting them outside of technical services units presented a problem and limited their usefulness. Now that these cataloging tools are being offered online, access to them is limited only by the availability of a computer, a licensing agreement, sufficient concurrent user access, or simply the awareness that such tools exist.

Class Web is more than a tool specifically designed for and widely used by catalogers. It represents the innovations that are having an impact on library personnel everywhere. Federated searching, aggregator databases, and other digital initiatives, such as electronic resource management, are only a few such innovations. During this time of technological advancements, cataloging departments should make the most efficient use of such tools as Class Web, not only by putting it to use within their own unit, but also by promoting its use to other noncataloging units, and thereby furthering the collaboration that already exists between technical services personnel and their colleagues in public services.

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Appendix A. Classification Web Survey for Catalogers

Please check one: __ I am a copy cataloger __ I am an original cataloger

1. How often do you use Classification Web (Class Web)?
__ More than once a day __ 2–3 times a week __ Less than once a week __ Once a day
__ I do not use Classification Web

2. How often did you use Classification Plus (via Cataloger's Desktop) before the transfer to Class Web?
__ More than once a day __ 2–3 times a week __ Less than once a week __ Once a day
__ I do not use Classification Plus

Please forward the completed survey to Anna Ferris. Thank you.

Appendix B. Daily Usage Data from Monthly Summary Reports

Date	Nov. 03	Dec. 03	Jan. 04	Feb. 04	Apr. 04	Nov. 04
1		3				8
2		3	1	4		5
3		4		5		3
4		5		4		3
5		2	4	2	3	4
6			5	2	4	
7	4		3		4	
8		5	4	1	4	4
9		5	5	3	5	3
10	3	3		3		3
11	3	3		4	1	2
12	3	3	3	3	15	1
13	4	1	3	3	3*	
14	2		3		9	
15		4	4		3	1
16		4	3	3	4	3
17	2	3		6		3
18	3	2		3	1	4
19	4	3		4	5	4
20	4		3	4	5	
21	3		3	1	4	
22		2	2	1	4	1
23		3	4	7	4	4
24	4	1		5		2
25	3		1	5		
26	5		3	4	3	
27			6	5	4	
28			4		4	
29		2	3		4	3
30		4	4		4	3
31		2				
Mean	3.357	3.045	3.381	3.565	4.409	3.2
StDv	.841	1.174	1.203	1.561	2.823	1.576

Note: Shaded boxes indicate weekends and holidays; *indicates the training day.