
Finnegan, Gregory A., and Katharina E. Klemperer. "EndNote at Dartmouth: A Double Review." The Public-Access Computer Systems Review 1, no. 2 (1990): 81-90.

I. Why EndNote? (Gregory A. Finnegan)

EndNote is a Macintosh program designed to insert citations into a word-processing document, format these citations correctly according to whatever standard (or user-customized) stylesheet is selected, and build a bibliography for the document from the cited references according to the stylesheet selected. EndNote was selected for the freshman software package at Dartmouth because it was easy to use, compatible with our OPAC, and inexpensive. For all of these reasons, it is suitable as a low-end "DFM" ("Download-File-Manage") program for Dartmouth undergraduate students. For a campus that attempts to innovate in delivering computing services and electronic information to students, faculty, and administrators, EndNote allows us to respond to Timothy Weiskel's challenge to libraries to do what none has done: to make their most important intellectual resource--their catalogs--available as a DFM resource. [1]

At Dartmouth, the first five freshman classes in the Macintosh era all had 85% of their members purchase Macintosh computers. At the beginning of the school year, over 70% of this year's freshmen had purchased Macintoshes. Adoption of the Macintosh and its software continues a 25-year emphasis at Dartmouth on computing as a means to an end--greater and easier student productivity--rather than as an end in itself. Computing power must be accessible to all Dartmouth students; the ease of use and the short learning curve of the Macintosh are major factors in its being adopted here. There are some 6,000 Macs on the campus network, which also provides access to the library's OPAC. [2,3]

EndNote was adopted as a campus standard application both because it is useful and because it is easy to use. Indeed, EndNote is easy to use, but, unless it is used under MultiFinder, it involves a certain amount of 'ping-pong' back and forth between EndNote and the word processing package. Both a full and a desk accessory version of End-Note are needed to make use of the package.

What EndNote Does

Using either EndNote or the desk accessory software, the user creates a "library" of citations. Then, while in the word processor (WORD 4.0, MacWrite, WriteNow, and WordPerfect are all

supported), a "library" is opened via the desk-accessory version of EndNote and references are selected by copying and pasting. Pasting at the desired point in the paper inserts a citation marker. Exiting the word processor and entering the full version of EndNote allows the user to open the "library," select the word processing document that uses the citations, choose a stylesheet, and format the document accordingly. Re-entering the word processing program, the user can view and edit the document, which now includes correctly formatted references. This sequence is necessary because EndNote always works from the viewpoint of the citations. The word processing document that contains citation markers is incomplete until a style sheet is chosen and the paper is formatted accordingly. EndNote allows easy re-formatting of the same document according to different stylesheets. It never overwrites a document. Instead, it always creates a new version, which can be named whatever one wants (the default name is the existing filename suffixed with the style chosen).

Because building a bibliography from the cited references doesn't happen until the formatting step, only one "library" of references can be used. Otherwise, the desired record won't be there or, equally important, it won't have the internal number used by EndNote to link citations to records. In practice, this isn't a major problem. Records from one "library" are easily and quickly imported and exported to and from other "libraries." One can keep libraries on given topics but combine them when writing a paper that contains citations for several topics.

What EndNote Won't Do

When we adopted EndNote at Dartmouth, we discovered that many library users, including (or especially!) librarians, have a lifetime of bibliographic fantasies that await easy computer fulfillment. And not all the desired capabilities are best handled (or handled at all) by EndNote. EndNote was the first really accessible DFM package most people had encountered. (A pocket of Pro-Cite users exists around and about our bio-medical library, but the complexity and cost of that program had deterred many potential users.) The flood of "will it do . . ." questions we heard made us realize that DFM software is needed, but it is so new to so many that users can have unrealistic expectations.

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EndNote is a citation manager, not a personal online catalog. Its focus is on inserting citations into written documents.

Bibliographies exist as adjuncts to papers; to get one by itself requires work-arounds. The easiest work-around is to select all records in a "library" and use the "Copy Formatted. . ." command to place the whole bibliography onto the Clipboard, from there it can be pasted into a word processing document.

EndNote finds records extremely quickly, even in large "libraries," but isn't meant to be a catalog. (Comparative tests of three DFM programs on a 2964-citation, 803 KB database showed EndNote capable of finding records in less than 2 seconds, versus 160 seconds for Pro-Cite. [4]) Bibliographies can be sorted by author, title and year. There is an add-on, extra-cost module called EndLink that formats downloaded searches from the major bibliographic databases (e.g., DIALOG, BRS, and MEDLINE) into EndNote, but there is as yet no support for downloading MARC records.

The limitations of EndNote, such as only supporting 15 "reference types," are really only limitations from the point of view of a "scholar's workstation." Few, if any, undergraduates will need to work with more than 15 types of references in one project. As librarians, we'd be happy if they could recognize fifteen types! Similarly, the fact that the companion EndLink module is an extra-cost add-on (even though it merges seamlessly into EndNote) and the fact that it is projected by Niles to remain an add-on in future EndNote releases is not an issue for undergraduates. They aren't end-users of bibliographic utilities, and any databases that Dartmouth mounts locally as part of its OPAC will have the catalog's "Display EndNote" feature, which is described later.

Because EndNote files can be exported to Pro-Cite (and vice-versa), the transition from the low-end EndNote program to the more powerful Pro-Cite program is easy one, when this transition is appropriate. We see the two major Mac citation management programs as complementing each other: Pro-Cite for "power users" who have a need for its capabilities and the time to invest in mastering it and EndNote for users who need an entry-level program. Unfortunately, both Niles and PBS see each other as direct competitors, and Niles talks of adding features that will possibly create an upward spiral of new features and increased program complexity.

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Why EndNote is a Good Thing

EndNote is properly praised as being an exemplary Macintosh application; anyone familiar with a standard Mac application can easily and quickly pick up EndNote. [5,6] As a bonus, the documentation is unusually well-written and easy to use. (This is in contrast to Pro-Cite.) As an application, EndNote will free students from keying citations more than once or, when OPAC searches are downloaded, at all. It will also allow them to re-format references painlessly for all the standard style sheets.

Who Uses Endnote?

Why is undergraduate use of EndNote still limited at Dartmouth? There are several factors of varying importance that explain this. We're just beginning the third term of the first year of

EndNote use. The program was distributed to all freshmen, but it wasn't automatically distributed to anyone else. EndNote is available at a deep discount, but it has to be individually purchased. All students must write papers, but upper-division students are the ones who are most likely to write major research papers. It's from graduating seniors that we get panicked style-sheet and citation questions. Seniors haven't automatically received, or even heard of, EndNote. EndNote instruction sessions are given to any class whose professor requests them, but they are targeted at freshman seminars. Most important, faculty have learned of EndNote chiefly from the library's newsletter and/or the computer center's newsletter, but students don't receive the library newsletter and they must ask for a subscription to the computer center newsletter. So, although the program is widely available, the vast majority of EndNote users (i.e., freshmen) are the least sophisticated group of potential users in terms of writing skills, library use, and Macintosh use.

This last point is important. An easy journey is still a journey with a beginning step. We tried to build in instruction about EndNote, the OPAC, and the college's e-mail system into the beginning-of-the-year "Mac survival workshops" for freshmen. The sessions were not as well attended as sessions for setting up and running the Mac and for using the WORD program. This was partially a result of scheduling and publicity problems, but it was mostly the result of student overload. We tried to give new students too much instruction too fast.

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Also, the value of a DFM package like EndNote is most apparent to a student who is aware of the range of bibliographic works to be used and cited. When even an Ivy League faculty can validly complain that freshmen literally can't read a citation and can't differentiate an article title from a journal title, it's unreasonable to expect such students to leap into using EndNote or any other DFM package.

And even the easy and short Mac/EndNote learning curve is a learning curve that has costs and benefits. A faculty member who promoted EndNote in a freshman seminar reported that students didn't use the program because the effort to create "libraries" (citation files) and to key in entries was greater than the payoff, especially when most students felt that they would never write another paper on that subject and would be making one-time use of the citations. This response contrasted with the students' reaction to the same assignment requesting that papers be "handed in" by e-mail; they all did it. Someone writing a senior thesis or even a major paper with lots of sources would feel differently about the costs and benefits of EndNote. We started at the bottom with freshman, but we hope to see greater use over time. Science graduate students are beginning to use End Note. Graduate students have more sophistication about sources, use more citations in their papers, and save citation files for future use.

EndNote can only process what it's given, which means that manual inspection and some cleaning-up are necessary when records are downloaded. (See the example in Part II.) Our BRS/Search OPAC has a database that was built from OCLC and RLIN tapes, with records that were created at Dartmouth, and from OCLC retrospective conversion tapes. This has resulted in some punctuation inconsistencies in the records. For example, an occasional citation will double the colon between place and publisher. Resolving this problem is a trivial concern for a large project, and it is certainly less work than manually creating citations and bibliographies. But, for a 5 or 10 citation freshman paper, it adds a relatively large step to the process of creating a bibliography.

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To sum up, Dartmouth has found EndNote to be fully capable of doing what we want: helping to shift student energy from the mechanics of citation and bibliography construction to the substance of writing research papers. The limitations we've encountered are not grounded in EndNote itself. Instead, they are a reflection of the problem of introducing yet another piece of software (and one of a new sort) into a complex and time-strapped academic community. (Dartmouth has 4 ten-week terms per year and the pace is not relaxed!) The word processor bundled with EndNote for freshmen is WORD 4.0, which has a much more limited footnote and bibliographic capacity than EndNote. EndNote is better than WORD and it is better, at least at the undergraduate level, than other DFM applications. But it isn't effortless and it does have to be promoted and supported by library and computer center staff.

II. How EndNote? (Katharina E. Klemperer)

One of the more useful features of EndNote is its ability to import formatted references from other databases.

By storing output from search sessions on disk as text files and using an ancillary program called EndLink, users can import citations from a number of commercial online databases. EndLink is simply a separate file that is kept in the same folder as your EndNote program. When you try to import a file by choosing the "EndLink" format, the EndLink program automatically parses the text file that you saved and converts it into EndNote citations in your EndNote reference library.

Just as simple to use, and cheaper, is EndNote's built-in import feature, which recognizes text files that have been formatted using one of two conventional formats: Unix Refer (or BibIX) format, and Pro-Cite format. What this means is that you can import into EndNote any citation collections that have been created using the UNIX reference database "Refer" (or BibIX) or the Macintosh version of Pro-Cite.

This also means that you can import references from any database program that is capable of producing Refer or Pro-Cite formatted files. If you have control over the displays produced by your online catalog or your locally-mounted bibliographic databases, then you can create files that are easily imported into EndNote.

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At the Dartmouth College Library, it was possible to do this, because we have written our own user interface our online catalog and, therefore, we can program displays to our own specifications. The Dartmouth Online Catalog includes the usual files of monographic, serial, and on-order records as well as DARTMED, a subset of the National Library of Medicine's MEDLINE database. Citations from all these files are candidates for import into EndNote.

Dartmouth elected to use the Refer citation format rather than the Pro-Cite format because it was easier to generate Refer citations and they were more legible on the screen. In a Refer-formatted citation, each field is prefaced with a two-character label, which identifies the kind of data that follows. These codes all begin with a percent sign (%). For example, the author code is %A, the title code is %T, and the journal-name code is %J. The codes are all listed in the Endnote Manual.

A "normal" medium-length display from the Dartmouth Online Catalog looks like this:

Author: Magasi, L. P.
Title: Acid rain national early warning system : manual on plot establishment and monitoring / L.P. Magasi.
Imprint: Ottawa : Canadian Forestry Service, Government of Canada, 1988.
Series: Information report (Canadian Forestry Service), DPC-X-25.
Location: Bus-Engr TD/196/A25/M18/1988.

If the online catalog user types DISPLAY ENDNOTE, the following display will appear:

%A Magasi, L. P.
%T Acid rain national early warning system : manual on plot establishment and monitoring /
%C Ottawa :
%D 1988
%I Canadian Forestry Service, Government of Canada,
%S Information report (Canadian Forestry Service), DPC-X-25.

Now, if the user is using a Macintosh terminal emulation program, he or she can use the mouse to "select" the EndNote-formatted display on the screen and save it to disk. The user then opens an EndNote Reference Library and chooses to import the file in Refer format. EndNote translates the Refer format into its own internal format and adds the reference (or references, if the

user has saved a number of them) to the current EndNote Reference Library.

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The user may now format the citation into whatever footnote or endnote style is desired. The above citation, formatted in "Nature" style, will look like this:

1. Magasi, L.P. Acid rain national early warning system : manual on plot establishment and monitoring / (Canadian Forestry Service, Government of Canada,, Ottawa :, 1988).

Electronic distribution of The Public-Access Computer Systems Review doesn't show off all the typefaces that are available on the Macintosh (in this case, the title should be italicized), but the layout is evident. Also evident are some of the problems of downloading from an online catalog into a reference manager. Nearly all of these problems involve ISBD punctuation. What was designed to improve the beauty of a catalog card doesn't enhance a footnote. Some of these quirks can be corrected by adjusting the EndNote style specifications. For example, the double comma following the publisher is caused by a comma embedded in the data, which is followed by a comma inserted by EndNote. If we tell EndNote not to add a comma following the publisher, then this problem is solved. Removing data that came originally from the online catalog record, such as the slash following the title or the colon following the place of publication, can only be accomplished by actually editing the EndNote citation.

The ability to download from the online catalog into EndNote has been received warmly, if not with wild enthusiasm, on the Dartmouth campus. The feature has been used most frequently by bibliographers preparing lists of recent publications and by medical researchers preparing subject bibliographies. With a little more exposure we feel that faculty and even students will begin to use this feature regularly.

Notes

1. Timothy Weiskel, "The Electronic Library and the Challenge of Information Planning," *Academe* 75, no. 4 (1989): 8-12.
2. Gregory A. Finnegan, "Wiring Information to a Campus: A Port to Every Pillow," *Online* 14, no. 2 (1990): 37-40.
3. Katharina Klemperer, "New Dimensions for the Online Catalog: The Dartmouth College Library Experience," *Information Technology and Libraries* 8, no. 2 (1989): 138-145.

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4. Glenn D. Rosen, "What a Beautiful Cite: Reference Manager,

Pro-Cite, EndNote Rated," The Active Window: BCS Mac Magazine
5, no. 12 (1988): 22, 24-26.

5. Ibid.

6. Franklin Tessler, "EndNote 1.0," Macworld 6, no. 2 (1989):
261.

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