
Microforms in a Linked World: Using OPACs and Other Web Applications to Improve Access to Content in Microform

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Most librarians will attest that users prefer information that is easiest to obtain. Studies have shown this as well – even when the “easier” information is less useful to the researcher than other resources.¹

In the current library environment, electronic information is typically the easiest to access – and so web pages (and, for the dedicated researcher, databases) are the first (and often the only) type of library resource drawn upon.

However, librarians know that microforms contain an “astounding range of hundreds of thousands of titles ... preserved and made affordable to

researchers.”² Although there is wealth of content in microforms, that content is typically readable only by physically visiting the library and using a dedicated machine. This has led many users to reject microforms out of hand – sometimes even when there is no other option for obtaining the information. Materials in microforms, which were “once considered [a] modern, efficient, compact and powerful medium”³ are increasingly considered the sources of last resort.

However, preference for web-based material is not the only obstacle to use of microform materials. Unfortunately, the access methods for many microform

materials are often burdensome and time-consuming.

For researchers accustomed to almost instant access to materials, the process of searching through a ring binder for the call number to a paper guide which directs the user to a reel of microfilm (a scenario sometimes encountered to this day) may seem too complicated to bother with the research. However, libraries have already adopted web-based technology to access electronic materials. That same web-based technology can be used to improve access to microform materials.

There are a number of identified techniques that enable li-

braries to bring microforms closer to the web-oriented researcher:

- Inclusion of item-level bibliographic records in the OPAC (and library portal)
- Where item-level records are not available, including information about printed guides in the same catalog record as the microform set
- Links to online finding aids where available
- Inclusion of microform serials in serials lists and databases
- Use of digital microform scanners to incorporate microform material in electronic reserves and courseware applications

The problem of bringing materials in microform to the attention of researchers can be divided into two activities: finding the materials, and distributing the materials.

For finding materials, the OPAC serves as the main research tool, but serials holdings functions of the ILS must also be considered. For web-based distribution of materials in microform, electronic reserves and courseware applications have remarkable flexibility and power. This article will approach each of these library services and explore ways that libraries are using web-based technology to lead users to content found in microforms.

Finding Materials in Microform

MARC Records for Research Collections

The motivation for libraries to ensure that microform materials are accessible can be summed

The screenshot shows the Florida State University Libraries Online Catalog interface. At the top, there are navigation links for Science Library, Information Library, Law Library, Medical Library, and Music Library. Below that, there are search options like 'ASK US NOW', 'EJOURNALS', 'FORMS', and 'FSU LIBRARIES'. The main content area displays a MARC record for 'DURAC SCIENCE LIBRARY - MF1107'. The record includes fields for Location, Title, Published, Description, Publishing history, Notes, Summary, Subjects, Other author(s), Format, and Material type. The Notes field is highlighted with a red arrow, showing a note about print guides and their location at the National Agricultural Library in Beltsville, MD.

Figure 1: Providing notes in a catalog record to show users the location of print guides to a microform research collection

up in the pithy phrase, "[p]ublications must be known to exist before they can be studied."⁴

As one microforms advocate writes, "A good microform collection can play a central role in providing students and faculty with research materials, but its value depends as much upon its accessibility as it does upon choice of materials. In turn, accessibility depends upon comprehensive bibliographic control of the collection."⁵ In general, bibliographic control of microform collections means that the catalog includes MARC records for each title within the collections.

Libraries that include MARC records for titles in microform within the catalog will see increases in use of microform titles.⁶ This serves the goal of connecting users with the information they are seeking – even if they find it by serendipity rath-

er than through directed searching.⁷

Titles in microform generally fall into three categories: monographs, serials, and research collections. For monographs and serials, bibliographic records can be prepared or acquired at a similar cost to the library as preparing records for paper or electronic versions of the same material.

However, research collections present a dilemma: collections containing thousands of titles present a nearly insurmountable cataloging hurdle.

Fortunately, libraries do not have to prepare their own bibliographic records for many major microfilm research collections. Thanks to cooperative cataloging efforts among major research libraries⁸ and a retrospective conversion project for the records listed in the National Register of Microfilm Masters,⁹

The image shows two screenshots. The top screenshot is a library catalog record from 'Pathfinder' for the 'Central American Archives: colonialism to independence'. It includes fields for Title, Alternate Title, Place/Publisher, Date, and Description. A 'Notes' section provides detailed information about the collection's scope and content. A 'Subject' section lists various topics like 'Central America -- History -- To 1821 -- Sources' and 'Guatemala -- History -- To 1821 -- Sources'. An 'Electronic Access' link is provided at the bottom of the record.

The bottom screenshot is the 'ONLINE GUIDE TO THE COLLECTION' search interface. It features a search bar and several filters: Keyword, Date, Gobierno (dropdown), Category (dropdown), Legajo (with a note '(e.g. 1)'), Document Number, Reel Number (with a note '(e.g. 1-8)'), and Description (English and Spanish). There are 'Search' and 'Clear' buttons at the bottom.

Figure 2. An example of a catalog record with a link to a finding aid, and the search interface of the finding aid.

there are now item-level MARC records for hundreds major research collections.

Many MARC record sets are available from OCLC.¹⁰ The leading publishers of microform sets also offer MARC records for many of their collections. The investment in adding MARC records for microform sets is one of the methods most likely to steer library users toward microform materials.

OPAC Links to Finding Aids

However, not all research collections have item-level MARC

records, and patrons must use printed guides or online finding aids to access the content. Fortunately, the web-based technology that powers OPACs also provides a means to connect the title-level bibliographic records to those guides.

Printed Guides

Printed guides are often cataloged separately from the research collections they index. This is justified by cataloging rules, but it often leaves the catalog user without any guidance about accessing the information in the microform set.

The 500 ("general note") field in a MARC record can be used to notify users that a printed guide exists. This technique makes clear the fact that a microform set can be accessed by item-level searching. Figure 1 shows an example of a catalog record from Florida State University that demonstrates how the notes field can provide crucial information to direct users to the guides for research collections.

Online Finding Aids

The ease of programming web pages to index databases has enabled publishers to provide online indexing to some microform collections. Libraries can take advantage of these online indexes. A link within the 856 field of the MARC record can point researchers to an online finding aid. The ability to search a microform collection within a web interface appeals to the web-oriented researcher. Figure 2 contains an example of a catalog record from University of California, Berkeley pointing to an online finding aid, and an example of the search interface.

These guides are not a substitute for complete bibliographic control, but the inclusion of pointers to printed or online guides within MARC records is an important tool to enable web-minded researchers to access microfilm materials by using the linking mechanisms that characterize online searching.

Incorporating Microforms in Serial Lists

For research collections, bibliographic records within the catalog help place microforms on an equal footing with similar ma-

terials in print. For serials, however, the catalog is only one of many places researchers seek to find titles of interest.

For libraries that choose to post a comprehensive serials list, the inclusion of microforms gives users a complete picture of available holdings. For many libraries, microform is the only format for most of the years a given serial was published. Showing microform holdings, therefore, gives a more complete picture of the library's serials collection. Figure 3 shows a title list from Quinnipiac University that demonstrates the value of listing microform holdings alongside other formats for the New York Times.

However, many researchers do not search by the serial title. Rather, they search within databases for relevant material, and then follow the citations to the serial of interest. To accommodate this style of searching, "link resolvers" were developed. A link resolver is technology that allows the database to link directly to an electronic serial.

In the case of print or microform titles, a direct electronic link is not possible. So many libraries simply direct users to search the catalog when a print or microform title is returned from a database. Figure 4 demonstrates how the University of Michigan returns print or microform results from a link resolver. For a user accustomed to instantly accessing electronic materials, the instruction to execute another catalog search is a disincentive to continue the effort to find the serial.

However, at least one library – Cal State Fullerton – has taken the steps to integrate informa-

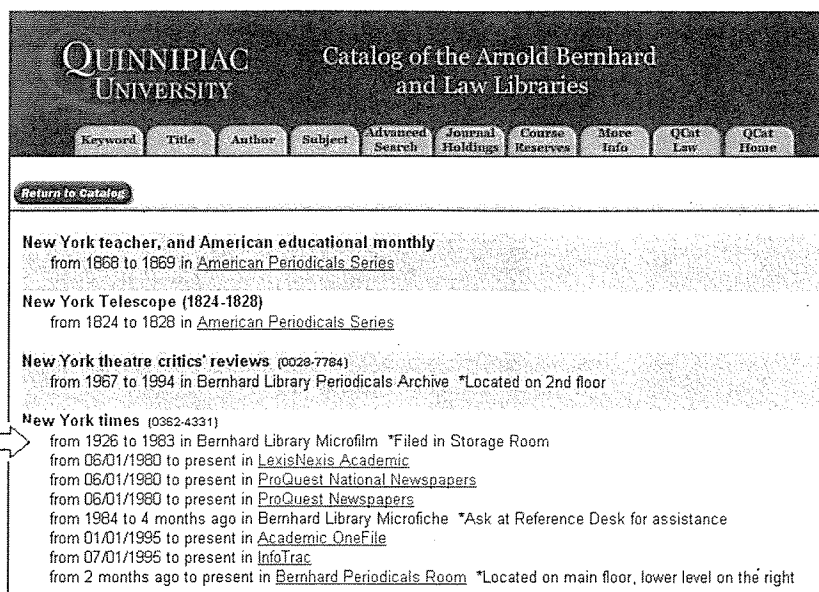


Figure 3: An example of a serials holdings list that includes microform volumes

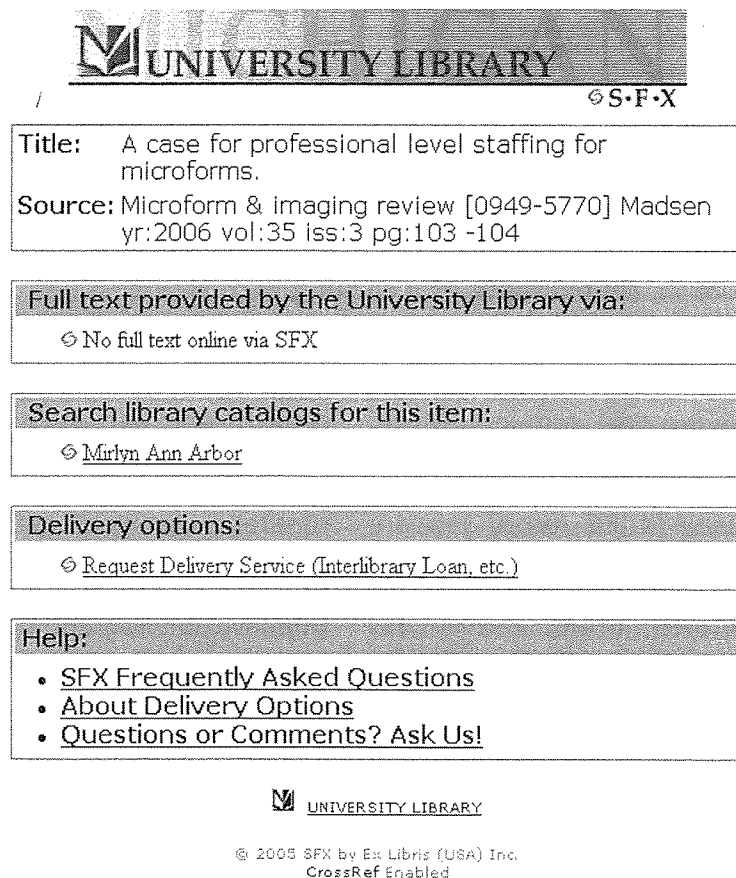


Figure 4: An example of a link resolver results page that does not provide information about print or microform titles.

CALIFORNIA STATE UNIVERSITY FULLERTON
Pollak Library Find It!

SFX Services for this record

Title: Functional status and well-being of patients with chronic conditions. Results from the Medical Outcomes Study.
Source: JAMA [0098-7484] Stewart yr:1989 vol:262 iss:7 pg:907-13

Available at CSUF

→ We have in print: **2nd Floor North in Periodicals**
Call Number: R 15 A48
IN PERIODICAL STACKS 235(1976)-269(1993),275(1996)-TO CURRENT DATE: v.236-237,243-244,246,269 incomplete.

We have **6th Floor South in Microfilm/Microfiche Periodicals**
Call Number: R 15 A48
ON MICROFILM: 191(1965)-263(1990).

Publication Information

Is this a peer reviewed (refereed) publication? Check in [Ulrichsweb.com](#)

More Options

Figure 5. A link resolver display showing microform holdings along with electronic materials.

tion about materials in microform and print into their link resolver. Researchers who search a database are presented not only with links to electronic versions of the title, but also information about holdings in microform or print.¹¹ Figure 5 illustrates a link resolver showing microform holdings along with electronically available materials.

Placing microforms holding in the same level of visibility as electronic titles is an important way to encourage researchers to consider these valuable resources; the fewer barriers between the original search and the reading of the article, the more likely researchers will be to use the microforms.

Distributing Materials in Microform

Providing improved methods of accessing materials in microform is an important advantage of web-based library technology. In addition, many libraries have the capability to use web

applications to distribute the material found in microform.

Such distribution requires two elements:

- the ability to create digital copies of microform material
- a web-based software application such as electronic reserves or courseware.

Digital Microform Scanners

There are many models of digital microform reader/scanners on the market. They offer two advantages over traditional reader/printers.

First, digital scanning often offers improved image quality. Patrons may have shied away from using microfilm because of difficulty reading or making out pictures. They will find that digital enhancement of the filmed image provides such improved legibility that "[y]ou wouldn't know it was from film."¹²

The second advantage is that images from microfilm can be

digitally scanned and saved, often as .JPG, .PDF, or .TIF files. These types of files can be viewed across most web browsers.

The digital files created from microforms offer libraries and professors an opportunity to use web applications to bring important research materials to web-oriented students.

Electronic Reserves and Courseware

Subject to copyright and fair use regulations, libraries can use these digital copies of materials in microform for use by students and researchers.¹³

Two of the most common web applications for distributing library materials are electronic reserves and courseware. Electronic reserves is a system that allows an academic library to post digital materials in an authentication-protected server, so that all the students in a particular course can obtain all the material needed for a course without each student making the same database/serials search. This is another example of libraries accommodating more and more students who prefer to utilize library resources from remote locations and during non-traditional library hours."¹⁴ Encouraging professors to use microform materials in electronic reserves is one way to expand the reach of microforms.

Courseware is defined as "software systems for the creation, storage, and management and usage of learning content."¹⁵ Courseware applications are similar to electronic reserves, but the material is posted by the instructor rather than by the library. The same style of

authentication-protected electronic cache is posted, along with grades, class schedules and other materials of interest to the students. Professors who draw upon microform materials for their own research should know that digital scanning can allow them to share the same important primary documents with their students via the courseware application.

Conclusions

While microforms will never enjoy the instant accessibility of digital-born documents, libraries which have invested significant sums in building their collections should be aware of techniques that can help reduce the barriers between web-savvy researchers and materials in microform.

It is important that as many titles appear in the catalog as possible, and that catalog records point to other finding aids. As well, libraries should be sure to include microform titles in serials lists; and some have even gone so far as to include microform holdings in their link resolvers. Finally, digital microform scanners provide a convenient means for libraries and instructors to include microform material in their electronic reserves and courseware.

The many important documents found only in microform are a vital part of any library's collection. Prudent stewardship of library resources suggests that taking steps to make microform

materials accessible to web-centric researchers is a valuable investment, for getting the most use out of library collections and for helping users find the materials that will satisfy their research requirements.

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Endnotes

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