

## WHAT CAN BE DONE WITH PHOTOCOPY PROJECTS FOR BUSINESS HISTORY?

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The scholarly use of microforms has increased, is increasing, and ought to increase. Documentation by microfilm, microcard, microprint, microfiche, on tape, and in photographs has become "respectable" as well as useful to researchers, particularly in the last 50 years. Few toilers in the vineyard of "thesisland" have escaped the eyestrain, headaches, and ill temper that accompany peering into a "reader" to verify some paragraph or news story. By means of photocopy the student today can avoid much of the stress and woe of researching because both the processes of recording and magnification are infinitely superior to those of even a decade ago. The student now can read for hours easily and without trouble because of improved readers and improved methods of indexing and codifying photocopy.

Attention here is directed not to the machines that record or reproduce, although improvement in techniques and hardware is the means to our chief end, but to the use of microforms for business history. A slight note of cautious definition is advisable because this discussion is directed first toward business history research, and then to the larger area of the discipline of which it is so much a part—economics. Also to be included, of course, is economic history when and where it touches upon the story of a firm, industry, or those persons who have contributed to the study of business. When relevant, the work of those who have used econometrical techniques and have blossomed under the name of cleometricians is also our subject.

The use of microforms can greatly aid scholarship in two ways. First, totally new or hard-to-get-at books and manuscripts can be photocopied without damage or difficulty. Second, sources once photocopied can be endlessly reproduced and distributed from a master negative or by some other process. Sources thus become as available as a book and at a smaller price. Another advantage is that photocopy, if properly treated, can preserve and reissue at comparatively little cost those source materials that would be withdrawn from the market or lost altogether if they were in the form of books.

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If microforms are as desirable and as superior as indicated, one ought to see them used much more than they are and so generally accepted as to create an insatiable and unfulfilled demand. This, however, is not the fact. Too many researchers have found material recorded on 35 mm. film to be fuzzy and indistinct on the reading screens. Film after film became scratchy—hence, blurred and unreadable. Manufacturers and publishers of microfilm adopted a form such as microcard and then attempted to assure profits by producing a reader that could be used exclusively for this particular microform, because without it reading was all but impossible. Thus in researching a project the student might have to go from microfilm to microcard to microprint—each form requiring a different reader and therefore causing a great deal of inconvenience. Frequently libraries and research sections purchased only one kind of reader. Consequently documents and photocopy on a different form or which required a different kind of reader could not be consulted. For this state of affairs only the sales policies of the industry can be held responsible. The evolution of satisfactory scholarship in microforms has been impeded by the variety and number of devices necessary to make the development agreeable and easy. Using microforms for scholarly research has in some respects been similar to having to travel by train, changing from one line to another every few miles because each railway had its own special gauge.

In spite of these difficulties of the past in using microforms, the present and the future can be regarded as full of hope for scholars due to the improved readers and the advantages of microform use. Sources preserved on microform should assist the business historian because a vast ocean of paper forms and nonhistorical materials will be eliminated. Vital records and basic documents will be photocopied; space saving and record preservation will point to the photocopying of historical material needs. Elimination of superfluous papers is a boon to business history, provided the record manager has a sense of history and either has a direct order to preserve or a firm desire to insure the safety of records. For the historian the ease of inspection of documentary sources, correspondence, tables, and reports is assured when he can consult an index and then put on his reader the reel or card desired. Any historian of a firm who has had to reduce thousands of papers to a few hundred files of relevant material will be grateful to the records manager who has saved and coordinated materials in a management internal records preservation program.

All is not sweetness and light, however, with some records management activities. Many managers simply eliminate all but a very few documents necessary for legal, patent, or profit statements. When this sort of program of file destruction is followed, microfilming is not helpful to the historian, who can only hope that record keepers will preserve in some form basic and explanatory materials so that at least the facts of audit, fiscal, legal, and administrative changes can be told. Knowing the reasons for policy changes and any and all innovations is an absolute necessity for the historian. Microform, a few cards or reels, can do the job of preservation with insight.

For large corporations the use of photocopy is more likely to be essential. When there is doubt as to which microform is best, or even doubt as to what materials ought to be kept, managements can consult the growing regiments of professional records managers, or specialists of such groups as the Committee on Scientific and Technological Manuscripts of the Society of American Archivists.

Another and recent method of gathering resource materials on microform is storage of them in memory-bank cartridges and on computers by professional management consultants. After working papers are filed and stored, the detailed reports are put on microform or microfilm cards and then stored, usually in cartridges. Through indexes the reports, in whole or in part, are available when the correct buttons are pushed to discharge part or all of the cartridge. A library consisting of hundreds of thousands of pages cross-indexed and stored in a cartridge bank conceivably could stand in a professor's office. If the historian is persuaded to use this material, months and even years of poring over mountains of papers can be saved. This kind of material organization and efficient storage may not be at once available to the historian, but a great deal of the history of American development of "know-how" lies here. Some day both the consultants and the clients will, it is hoped, have the good sense to make that which is of historical value available for discreet usage.

Because the question of cost is one of the first to be asked whenever publication of resources in microform is mentioned, it is well to attempt an answer to some of the obvious concerns about price. Usually photo reproduction is of newspapers, runs of serials, and official reports which carry little or no copyright cost. Copyright can make prohibitive any reproduction in any media. Microform publishers, the same as other publishers, prefer

to keep down their cost. When copyright use is too heavy a cost or denied outright, there will of course be no publication. When, however, a microform project is faced with copyright costs, the publisher ought to be expected to meet them and satisfy all legal requirements. He will then include the cost of copyright in his ultimate sales price. Profit in microform publication projects comes from sales sufficient to meet cost of camera editing, transportation of photographed materials or of the cameras themselves, advertising, and other like costs such as royalty payments to the editors. The number of sets of the completed project will determine the profits.

Let us consider a specific example: The papers of Frank Gilbreth, the great time and motion engineer, were deposited at Purdue University. There the papers were housed in cabinets as Gilbreth had so carefully collated and indexed them. He had developed an index system of his own, unlike any other known. If his unique contributions to the history of production were to be seen by more than a handful of researchers they would have to be reproduced on photocopy. Permission was given for a photoreproduction by Mrs. Lillian Gilbreth, his widow, who was a professor at Purdue. Professor James Green of the School of Industrial Engineering made arrangements, and a commercial company brought its cameras to the university library. The publisher undertook profit risk and costs of advertising, and of course kept the profits from his efforts. The university had the satisfaction of making generally available these papers of value for the history of industrial production.

What made this project successful was the knowledge that a certain number of general customers, colleges, graduate schools, libraries, and special research institutions, as well as many business firms here and abroad, would buy the filmed project. It is a characteristic of microform projects that once costs are met for the original copying, profits then accrue rapidly after the break-even point is reached. For example, all costs may be met after the sale of the twelfth set. If 20 sets are sold altogether, the profits are almost 100 percent of selling price for the last eight sets. The library or repository seeking to make its resources available to the greatest number need not fear the microform project if the publisher can be shown that profits are possible.

The problem of cost is not the only hurdle that microform publishers may have to jump. Many holders of valuable papers insist that the uniqueness of their collection would be lost, a

virginal purity violated, if pictures of their papers were to be taken. It is true that more scholars would use the papers if they were to appear in microform. It is true also that visiting scholars would no longer be forced to register at the desk of the institution and then to occupy uncomfortable chairs at dingy tables or in dusty alcoves in the reading room. Conditions in these repositories of books and papers are just as grim as that—and thus indirectly such repositories are withholders of knowledge. A proper policy for research libraries is that adopted by the Newbury Library of Chicago, which has permitted a commercial microform publisher to make its holdings available to the world.

Copies of some serials, such as parliamentary papers, the *Journal of Economic History*, or the correspondence of such people as Presidents of the United States, are not available either in book form or in manuscript. The National Archives policy of microform copy, accompanied with index and guide, is most commendable. When printed reproduction of the sources is unavailable, then microforms can be used to diffuse at reasonable expense this basic information. When an inspection of each new catalogue shows that letters, manuscripts, even out-of-print books, are now available in microform so that everyone can have them, who can fail to turn to this method of gaining knowledge? Let the skeptic try to buy a used set of Britain's Parliamentary debates if he doubts that microform sources are both cheap and readily available.

One of my colleagues recently said that as an economist he had most of the books in specialized serials that he needed for teaching and research, but he wondered if there were microfilm of a German economic journal of the 1920s. We found that a complete set of this magazine had not been photocopied; indeed a set in print was hard to come by in this country. This set off our search for an adventurous publisher who would undertake a photocopy project of the complete run and several other runs of German economic serials. Criteria for selection was that these serials were not generally available in our library. A combination of out-of-print, rare, or generally unobtainable materials can thus be assembled and reproduced. The stumbling block in scholarly progress usually is the indifference of the professor to assemblage of materials for a general project, or the lack of time in which to do it.

The flood of economic sources and their rapid superannuation dictate that the best method of keeping them is on micro-

form. One may, for example, make use of the microfiche and store from 65,000 to 70,000 pages in his office desk drawer.

The business historian has to deal with records of management activities. He must look for evidence of rise and decline of finance, markets, sales, policy formation, management decisions, and the role of key personnel. From these he puts together a story of success or failure of the firm or institution. Sometimes he cannot use the most pertinent and revealing documents. Sometimes he can tape interviews but not quote from them. All too frequently he will work for months just to find out what papers he can use. His research is a process of elimination, frequently without guides to help him. A casebook dealing with companies that encountered problems similar to the one he is considering or a casebook of management experience can serve as a guide and aid. Whenever a casebook can be useful, microform can be of equal or greater use.

In Fort Wayne, Indiana, there is an archive, under the supervision of the local historical society, that contains vast quantities of sources on interurban railways. Indiana had the most complete interurban system of any area in the country. Would not the editing in photo publication of the million or more relevant documents be of use to the business historian? Why did the locally financed 30-mile interurban company fail? Did railroad competition defeat the interurban? If so, how did it do it? What was the reason for Samuel Insul's plunge into interurban electric competition with motor car and the railroad? Very few researchers will travel to Fort Wayne to probe the history of Indiana interurban companies. It is all there, however, even to the story of the role of Wall Street in interurban railway finances and is part of the history of twentieth century American transportation. It can be made available through microform to every economic and business history library.

Wherever there are company histories to be found in dust-gathering files—in college and local libraries—there a microform project may be considered to bring the sources to the student; not the other way around. To do this the project must be conceived, its contents must be composed of materials attractive to scholars, and then a publisher must be found who at the least cost can do the job. It is possible to make research materials available at 1/50th of a cent a page or less.

It has been proposed that material for the study of the 14th amendment be assembled and edited for a photocopy project.

The project would sell to universities, their law schools, political science, and history departments. Libraries outside the academic world also would be purchasers, as would foreign libraries. This project, an excellent one, is not going forward because of lack of a distinguished editor, whose chief task would be that of organizing and publishing legal cases, newspapers, and monographs now out of print. This is an example of what could be done and what is lost, at the moment, for lack of scholarly editing.

Every college where economics and business history are taught can make a list of periodicals, monographs, and out-of-print books that it would like to have. When the cost of acquisition is too high or when books are simply not to be found, what other source is there but to reproduce such material by photocopy? If there exists a sufficient number of pages and a sufficient demand to go into a project, not only the library but the world of scholarship will benefit. This is an obvious reason for attention to photocopied resources but another, and perhaps minor, reason also demands attention.

A few libraries containing much that is in demand find themselves pressed for seating space and find that their own faculties cannot always get desired books simply because of the horde of visiting scholars and professors using them. The growth in the army of students using facilities planned for only a few individuals is pressuring librarians and research faculties. One of the great libraries containing materials for the study of business is that of the Harvard Business School. It has been suggested to its librarian that at least one-half of the holdings of this great repository could be photocopied for the use of researchers. If this could be done, Harvard might not have as many visitors, but it would be efficiently using space and sharing its knowledge at the same time. Could not something similar be done by each of the great repositories of economic and business history? The result would be a clearing house or resource pool of organized and generally available material at comparatively little cost because of the wide dissemination of information that would result.

To do the urgent job of microfilming publication of resources, it is necessary to have a national committee of scholars to select and edit them. The well-organized trade association of the microfilm industry would help such a committee plan for profit, if for no other reason. It must be remembered, however, that less than 10 percent of the gross income of the microform publishing industry comes from academic sources, but the industry might be

interested in publishing where projects are as large and as general as the one suggested above.

That unpublished materials useful to business and the economic historian and adapted to microform do exist and could be published is obvious. A brief inspection of statistical data, for example, shows that there are four census returns starting with the year 1840 that have not been completely microformed and that the only way to make such data generally available for research is to put the whole of the missing parts on microfilm or microfiche.

At Purdue, my own university, I conducted a brief search for materials that might present publishing opportunities for immediate microform projects. I found three. First, we have about a million pages of analyses and business reports concerning American companies whose stocks have been sold on Wall Street. The chronological period is that from about 1910 to 1960. This is a collection of appraisals for investors and information on management policies and industrial opportunities. They are found in the great Roswell Collection. Second, the purchase of several libraries of private collections has left a great many out-of-print and rare items that could be placed on microforms at small cost. It has been suggested that some of these items and a long list of monographs and books out of print on the history of management be photocopied by the duo-page process. Third, the archives of the Purdue School of Agriculture are presently being catalogued and arranged. An estimate is made that documents on the history of the state and Federal relations and assistance to, and organization of, the business side of Indiana farming number between 140,000 and 150,000. A good survey of farm and agricultural business management could be put together on microforms for general students.

Inspect the archives and holdings of your institution. Check the archives and files of the local library, shops, and industries. The microform publication in project form is probably less expensive than publication in book or hard-copy form. Dissemination of more sources and acquisitions by microforms where no other means are available are reasons for supporting microform use for scholarship. When knowledge of many individual enterprises is essential for informed study, perhaps their records, placed on microform, will both preserve the story of what they have done and help tell the history of our economic achievements as a nation.