

Telefacsimile In Libraries and Information Centers

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Telefacsimile as a process for transferring information from one point to another has been in use since the beginning of the 20th century. Andrew Cartel depicts fax as being "To the copying machine what telex is to the typewriter".¹ Yet, libraries as leading transmitters of information have underused this process. This article will approach the treatment of telefacsimile in a three pronged way: 1) descriptions of the ways fax, as it is commonly known, is used in settings other than libraries, 2) what the comparable uses in libraries could be, and 3) the authors' theories on why libraries are not using fax.

Telefacsimile is the transmission over communication circuits of an exact copy of a document to a compatible receiving unit at a remote location. This technique begins to exploit its potential through improved communications technology and increased systems compatability.² As early as 1908, a facsimile copy was sent via wireless, and in 1910 a service for sending press pictures connected Berlin, Paris, and London. During the 1930's newspaper wirephoto services were initiated and some of the scanning and recording techniques that are used today were first introduced. Most of the earlier equipment, and some of the modern pieces are console type. However, consoles require dedicated circuits and spiral connections. In the late 60's facsimile transceivers that are compact in design and can transmit over the regular switched telephone network became available, opening up a new market for facsimile.³

In 1971 according to various industry sources, an estimated 20,000 to 28,000 fax units were in use in the United States, half of which were the compact models. The facsimile transceiver is a communications terminal capable of transmitting graphic alpha-numeric information with electronic speed.⁴

The most rapidly growing segment of the facsimile field is the sub-three-minute equipment known as "fast fax." IBM, using fast fax, sends sales and legal documents across the Atlantic—an application previously relegated to either 'slow' air mail or expensive international telex.⁵ NBC uses fast fax for teleconferencing, by sending documents back and forth and hooking up a speaker-phone, saving on travel, time, and some energy reserves.⁶ NASA, Boeing and just about everyone else involved in aerospace uses fast fax for teleconferencing.⁷ The managing editor of the *Honolulu Advertiser* commented that "we're looking into every possible application of the machines in our news coverage,"⁸ and he believes fax eliminates all the

problems of routing and relaying that plagued the *Advertiser's* coverage of Mainland stories in the past because of the need to go through two or more communications companies and the difference between domestic and overseas tariffs.

A commercial printing company in Greensboro, North Carolina uses fast fax to bid for jobs in such distant cities as New York, Chicago, Dallas, and Miami. The Fisher-Harrison Corporation, normally at a distinct competitive disadvantage is going for more and more distant business because they have eliminated a substantial amount of travel and delivery time. Most of the work that has been hand-carried to and from cities is now delivered using ordinary telephone lines and compact telecopier transceivers. "Although we have a daily courier service between Greensboro and Durham, the material to be [typeset] in Durham is sent by facsimile transmission throughout the day as needed," explains Paul Wright, director of marketing at Fisher-Harrison.⁹ Facsimile is flourishing in industry because it fills a common requirement in most business organizations—the need for rapid communication of business correspondence, including alpha-numeric, tabular, and graphic information.

Warren Bird maintains and processes the files of the *Library Telecommunications Directory*¹⁰ at the Duke University Medical Center in Durham, North Carolina using an IBMS/370 computer. Libraries in the United States and Canada are included in this directory. The nine North Carolina libraries may be grouped in three categories:

1) Special

Bowman Gray School of Medicine Library
Duke University Medical Center Library
NC State Library
NC Union Catalogue at UNC—CH
University of NC Health Sciences Library

2) ARL

NC State University, D. H. Hill Library
UNC Library, Chapel Hill

3) College

ASU Library
Gardner Webb

Can libraries use telefax in ways comparable to the ones reported by industry? Yes. Telefax can be used effectively at several levels: 1) to reply briefly to the receipt of requests for materials or information; 2) to refer to specialized sources in answering requests; and 3) to transmit materials, i.e., journal articles.

The cost of facsimile transmission in the library experiments of the 1960's and early 1970's are reported very high by most investigators. Factors always considered in determining costs because they are interrelated include:

- 1) equipment rental or purchase
- 2) supply consumption
- 3) telephone charges
- 4) labor
- 5) subject copy preparation costs (although often difficult to control)

For application examples which are based on Six-Minute Analog Transceivers and One-Minute Digital Transceivers, see Saffady.¹¹ The reader should be aware that further adjustments are needed in these cost quotations since Saffady's article was published in October, 1978.

Library materials are frequently required for quick informational answers (such as copies of letters, short articles, bibliographic citations). Rush requests for items that cannot be sent quickly in another format (such as musical scores) indicate an additional important use of telefax.

Among the formats that can be transmitted are the printed, written, or typed note. Photocopies, as well as mimeographed and offset materials may be sent. Graphic materials such as original photographs, drawings, maps, and music may be sent via fax. Different types in writing instruments are transmittable as well, i.e., pencil, felt tip pen, ball point pen, etc.

Telefax is effective in transmitting answers to reference questions such as, "Need the words and music to 'Ease on Down the Road' from the musical *The Wiz* immediately;" "Agenda of meeting to be held the next day;" and "Exact text of a house bill for report being written."

However, in libraries a generalized resistance to this new equipment appears to be the norm. Some libraries seem to want to use telefax only in "special" situations that cannot be handled in any other manner, rather than using telefax whenever possible. Others who may have been "burned" by one bad experience years ago (usually before the current sophisticated equipment or fast fax processes were commercially available), have been wary of fax ever since, and have not investigated the current state-of-the-art. Finally, as with many other heavily-used office practices (word processing, for example) libraries have been reluctant to use, or ignorant of, the "miraculous" equipment in corporate or industrial offices.

It is time for libraries and information centers to reevaluate telefacsimile as an option. Its advantages in speed and accuracy offer much for the library or information institution charged with rapid, user-sensitive, public service.

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¹Andrew Cartel, "Beyond the Telephone," Melbourne, Library Council of Victoria, Public Libraries Division, 1976. (*Technical Bulletin* no. 4)

²Rick Minicucci, "Facsimile Begins to Exploit its Potential," *Administrative Management*, 37 (January, 1976) 45.

³Albert Chu, "Facsimile: Business Gets the Message," *Business Automation*, 18 (August, 1977) 20.

⁴"Facsimile: 1978 Overview," *Communications News*, 14 (December, 1977) 67-84.

⁵Howard Anderson, "High-Speed FAX, Low-Cost Terminals Show Great Growth in Facsimile Field," *Communications News*, 13 (December, 1976) 32.

⁶Anderson, "High-Speed FAX Low-Cost Terminals Show Great Growth in Facsimile Field," *Communications News*, 32.

⁷John R. Hansen, "Facsimile: the Versatile Alternative," *Infosystems*, 24 (September, 1977) 67.

⁸"Editor Counts Savings in Transmitting Copy," *Editor and Publisher*, 104 (April 3, 1971) 21.

⁹"Commercial Printer Using Facsimile to Reduce Travel, Expand Market Area," *Communications News*, 13 (December, 1976) 31.

¹⁰*Library Telecommunications Directory: Canada-United States*, 6th rev. ed., Durham, Duke Medical Center Library, 1976, 42 p.

¹¹William Saffady, "Facsimile Transmission for Libraries: Technology Design," *Library Technology Reports*, 14 (September-October, 1978) 483-485.