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Technology Update: The Coming of the All-Electronic Library

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in the last thirty years computers have changed the lives of academics so much that it is difficult to remember back to a time when they were not influential. To illustrate the point, I went back to my appointment books and a personal journal I kept as a graduate student in 1973 and tried to reconstruct how I did the research for my dissertation on family conflict. I was able to find descriptions of some of the dates and places of my work in Boston libraries, and much of the original material that I collected and read to form the literature chapter. What I discovered made clear to me how much things have changed.

Beginning in September of 1973 I spent approximately eight months working several days a week in three different libraries in Boston (Boston University, Harvard and Boston College) searching indexes such as the Social Sciences and Humanities Index for journal articles on the subject of my research. Typically the articles were to be found in journals in storage in "closed stacks", so I had to give a reference staff member a citation for the article and wait for it to be brought to me. Then I had to read it in the library and, if I thought it might be useful for my work, either take detailed notes or copy the article on a machine in the library. (I carried a special bag of change for the purpose.) In many cases the journal article had to be ordered through inter-library loan from a remote library, and my wait was sometimes measured in weeks. The end result of all this was a collection of three boxes of notes and copies of articles.

Now, things have changed so much that twenty-seven years later I was able to essentially reproduce my earlier literature search in less than an afternoon. I never had to leave the desk in my office and, in fact, I was able to find many more citations than I had originally. For anyone who has conducted a literature search using computerized sources, there is no magic in this. There is a wide range of library collections available at Bridgewater, and many more from the great research universities in the world through a variety of computer connections. For those who have not had reason to do such a literature search, I can easily illustrate the process. I took a few moments from writing this article to connect to Maxwell Library’s electronic databases and conducted a search using something called "Academic Search Elite" which describes itself as "An index, with abstracts, to 3000+ publications, many of which are in the social sciences. Over 1000 of the periodicals covered here are available in full text." I typed in the search words “family conflict” and within a few seconds found that a search of the journals included in this particular index contained 158 articles related to the subject of family conflict. Many of these could be read on screen and printed in on my office printer or on a faster, remote printer. Similar sorts of searches using other indexes that covered other journals could have been conducted as easily and almost as quickly. And electronic searches are not limited to journals. Recently, Maxwell Library obtained access to NetLibrary, a shared collection of approximately 7400 electronic books.

Obviously our jobs as teachers and researchers are changed greatly by such technology. But other jobs are changed even more. Consider the work of librarians, especially those who work in the area of reference. There are still paper resources to deal with and buildings to house them. We read books and journals in the old fashioned ways, especially if we are, in fact, old fashioned. (I still prefer paper journals to electronic for some purposes. For example I like to skim the last few years of some of the journals in my field to get a sense of what is generally going on beyond my relatively narrow areas of interest.) But most of the work of reference librarians is in the electronic area. In Maxwell Library, for example, Sarah Nesbeitt is one of a number of reference librarians who support the electronic reference needs of the college community. Her job did not exist twenty years ago because the technology did not exist. Here is what her job looks like today.

Sarah Nesbeitt’s job is roughly divided in halves between her responsibilities to users of the library, and to the operation of the library’s automated systems. Let’s begin with the user-oriented part of her job. When a student, faculty member or staff member needs to find some library resource he or she may go to a reference librarian for help. The range of questions is as broad as the range of forms in which our information is available today. For example, a library patron typically wants information on a particular topic, and the information may be found in any of a variety of forms, including books, journals, films, videos, government documents, audio tapes, databases, web sites or other
As part of this process publishes printed and electronic skills so we don't have to ask for reference help for each of our should actually be able to teach these skills in our own classes. learning computer skills is neither easy nor natural. Many of the sources of information are not in physical library buildings, but in virtual libraries or library collections that maintain information in electronic form alone. The physical computers, the software that runs them, and the information services and databases to which the library subscribes must be installed and maintained. New products must be evaluated and integrated into the system, and the system must also be evaluated in terms of its efficacy for users. These are primary responsibilities that Sarah Nesbeit deals with daily. None of them existed even twenty years ago. She designed the Library's web site and maintains it, working from decisions made by a web committee she chaired. Anyone who calls up the college web site can get into the library web site and, depending on their location (on-campus or off campus) use a range of the library resources and search capabilities. For example, Webster, the electronic catalog of the holdings of the Maxwell Library, went online in June of 1999. Sarah later designed the interface and many of the graphics that made it a Bridgewater site. The paper card catalog is ancient history already. Also on the library web page are links for other library resources and services. These include:

1) Electronic resources including databases and search guides, Internet resources by subject, a database of the full-text journal titles owned by the library, and online indexes and abstracts
2) Library Services including library hours, descriptions of library service units, floor plans, circulation and reserves, and off-campus access information
3) Library Collections including guides to library resources, a periodical list, and the library's list of recent acquisitions
4) Electronic Forms, which allow members of the Bridgewater community to suggest books for purchase, place interlibrary loan requests, request a library instruction session, and place books on reserve.

Lastly, Sarah's work in electronic library resources has, naturally, spilled over into her research interests. She is, for example, the regional editor (North America) for Reference Reviews, a journal that reviews reference materials, including electronic reference resources. When new reference resources are marketed, such as an online version of the Oxford English Dictionary, Sarah has a list of about fifty reviewers available to evaluate them. Reference librarians can then read these reviews for help in deciding whether to acquire them for their libraries. In addition, Sarah designed and runs a web site that posts library jobs on the Internet, and is co-authoring a book to be titled The Information Professional's Guide to Career Development Online. It will focus on the ways in which people in jobs like a librarian's can use online resources to develop professionally.