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CT 552 - Paper #2: Vision of the Future

A Vision of the Future Use of Computers in College Libraries

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I. Introduction

For the purposes of this essay it will be helpful first to condense the multitudinous roles of today's academic libraries into the following single axiom: Libraries provide access to quality content. Academic libraries provide "content" (periodicals, books, and so on) and "access" (that is, services such as cataloging, reference aid, and interlibrary loan, among others, which connect users with the content they seek). This essay will briefly consider how both content and access may be affected by computer technology in the future.

II. Content – Periodical Literature, Reference Works, Monographs (Books)

a. Periodical Literature

Traditionally, libraries have collected periodical literature for their users. Millions of volumes were purchased, bound, and stored away awaiting use in what amounted to a "just in case" business model: i.e., material was acquired just in case someone might like to make use of it sometime. To facilitate access to this trove of material, indexes were painstakingly developed. Libraries then had to purchase these print indexes to make their periodical collections reasonably useful.

Over time, the indexes were placed online for easy searching. Soon afterward followed the journal articles themselves. Today, thousands of full-text periodical databases offer indexed access to millions upon millions

of articles. Further, most of these databases are Web-based and, thus, are available 24/7 from any Internet-connected computer.

The great value of online periodical databases is evident to even the casual user, but the great cost of such resources has until recently kept them out of the hands of all but the most well-endowed libraries. Today, however, cooperative projects such as the Maine Database Project [<http://libraries.maine.edu/mainedatabases/>] offer even the most modest library full access to powerful information products by the likes of EBSCO and ProQuest.

Many have assumed that with universal access to full-text online periodical databases would come the end of all print subscriptions. Nevertheless, many libraries today continue their print subscriptions. Some desire redundancy. More are simply stuck on tradition. Accompanying the rapid growth of the electronic information industry has been a fairly strong backlash by academics (faculty, administrators, and even librarians) distrustful of change and nostalgic for the familiar. It is my belief, however, that the writing is on the wall (so to speak) for print journals. With an ever-increasing supply of alternative information sources, no library will long be able to continue redundant collections of print and electronic journals. Print will, in the end, die out.

Even older issues of journals will soon be available online. Companies like ProQuest are already busy digitizing their microfilm backfiles. As such retrospective conversion continues, more and more collections of older print journals will be discarded by libraries.

In predicting the disappearance of the print journal from academic research use, I am not predicting the end of print periodicals altogether. Serious journals may well go the way of the dinosaur, but the more popular magazines – like *Time* and *People* – will no doubt continue to flourish. Public libraries may well continue their subscriptions to these magazines for the benefit of their patrons.

b. Reference Works

Reference works – encyclopedias, dictionaries, almanacs, atlases, handbooks, and so on – have already largely succumbed to wholesale electronic conversion. More limited in quantity than periodicals, they were much easier to convert. Also, the timely nature of information contained in reference works practically begged to be placed in the online environment, where updates can be constant and instantaneous.

Nearly all encyclopedia producers have now discontinued their paper products. Only the online versions exist. The same is rapidly becoming true for all other types of reference materials as well. In a very short time, the reference collections of all academic libraries will dwindle to a mere fraction of their former floor space. They will not disappear completely, however. For libraries focusing in specific content areas, it still proves beneficial to acquire print reference works in those content areas. At Thomas College, for example, the library continues to purchase multi-volume sets dealing with company, industry, and brand information. Such information, if available on the Internet, remains prohibitively expensive to purchase in electronic form.

c. Monographs (Books)

Monographs (books) have been the last of the traditional paper resources to become digitized. While it is true that many new books are now published in electronic format, most are not. And while many older books have been scanned into computers and posted to the Web, these account for only a tiny fraction of all existing printed books. To make all books available online will take many more years and many millions of dollars. Still, work progresses and in time we may well accomplish the goal of complete digitization. Just in the past year or two, advances in OCR (optical character recognition) software has greatly improved the speed and

accuracy of scanning.

More limiting than the conversion technology may well be the display technology. While academic journals and reference works are largely used in brief spurts of reading, monographs are generally read from cover to cover. Such prolonged reading cannot currently be accommodated on electronic devices. Aside from the obvious issue of portability, there is the important matter of eyestrain. Each of these concerns is being worked on, though, and there may well be a breakthrough device introduced any day now.

The disappearance of books, unlike that of journals and reference works, cannot be anticipated anytime soon. The scale of the undertaking remains too massive and the state of available technology too limited. Ultimately, though, it is not unreasonable to expect that at some point in the future books will follow in the footsteps of their print cousins.

Once again, when I write of “books” I mean those held in academic libraries, especially of the non-fiction variety. Novels, especially the popular novels held in public libraries, may well continue a long and fruitful existence.

One final caveat: It may be possible that non-fiction books will continue to exist in a nether state, neither entirely print nor entirely electronic yet both at the same time. With current technology it is certainly very easy to store the complete text of a treatise online. With current technology it is also very easy – and surprisingly inexpensive – to quickly print a one-off copy of the treatise in question. Devices like the InstaBook printer/binder [<http://www.instabook-corporation.com/index.html>] will produce a paperback book in less than a minute. Perhaps such disposable books will be printed on demand, then pulped for reuse later.

III. Access – Reference Desk, Information Literacy, Physical Space

a. Reference Desk

Traditionally, academic libraries have provided a multitude of services ranging from collection maintenance to reference help. As more and more content moves online, the need for librarians to catalog and process it for later retrieval will disappear. While a few librarians wax nostalgic about the good old days, most are deeply appreciative of being released from such curatorial duties. Time that used to be spent cataloging holdings will now increasingly be used to help patrons navigate the complexity of online research.

When content lived in library buildings, reference help had to occur in person out of mere necessity. Now that so much content is online, reference service may now occur online as well. In fact, I increasingly answer queries via e-mail or online request form [available at <http://www.thomas.edu/intranet/libreq-enter.asp>]. Of course, patrons can still stop by the library in person to seek help. Communicating with spoken words and visual examples remains the most efficient mode of learning. Eventually, online videoconferencing may subsume person-to-person interaction, but not quite yet. In the meantime, e-mail and online request forms serve to provide remote users with a degree of reference aid previously unavailable to them.

b. Information Literacy

Information literacy may rightfully be a sub-topic of reference aid, but it has grown in importance to such an extent as to now warrant separate consideration. In the past, librarians instructed patrons on how to locate books and journals in the library. Though these were important skills, they did not involve much in the way of critical thinking, for all of the material within the building’s walls had already been pre-selected by librarians. Today, however, patrons need to be taught not only how to search a plethora of online resources but also how to distinguish good information from bad.

Information literacy embraces both facets of online research. It aims to make users technically proficient enough to operate the hardware and software needed in their information quests. Something as fundamental as how to download or otherwise capture a file once found is an example of what often trips up the erstwhile researcher. Information literacy also aims to impart to users the critical wherewithal to be able to separate the biased commercial wheat from the impartial authoritative chaff.

To address the important issue of information literacy the Association of College and Research Libraries (ACRL) has recently promulgated its “Information Literacy Competency Standards for Higher Education” [<http://www.ala.org/acrl/ilcomstan.html>], which include detailed standards, performance indicators, and outcomes. On a more general level, the American Library Association has released its “Report of the Presidential Committee on Information Literacy” [<http://www.ala.org/acrl/nili/ilist.html>], which stresses how critical these new skills are to the public at large.

c. Physical Space

When information existed only in analog form, a physical space was needed in which to protect and store it. Now that so much information has taken on a digital form, do we still need library buildings? Certainly the need for massive storage areas has decreased markedly and will continue to do so in the future. There will remain, however, the need to offer publicly-available equipment to patrons. Not every college student can afford to buy his own computer. Then too, machines break down or become otherwise unavailable. Furthermore, computers in the library are convenient for commuters or anyone else without an easily transported device. Computers in the library can also be used for demonstrations and workshops. Finally, computers in the library have the decided benefit of being physically located in close proximity to those – i.e., librarians – who know best how to effectively use them to find information.

Lastly, consider that library buildings have also traditionally offered quiet refuge for individual study as well as – paradoxically, perhaps – space for group study and social gathering. Regardless of what form information takes in the future, people will still want a quiet place to study and a place to meet with their companions.

IV. Conclusion

I believe that computer technology will continue to profoundly affect every aspect of library holdings and services. In 10 or 20 years, the library may seem superficially unrecognizable to us today. But I believe also that the core reason for the library’s existence – to provide access to quality content – will continue and, in fact, will grow in importance over time. Librarians will spend less time tending books and more time helping people find the information they need.

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