

# RMG Consultants, Inc.

Papers on Library Automation

## Beyond the Online Catalog: Conversion and Connectivity

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With recent exceptions, library automation has focused on the processing of bibliographic and other records by which libraries conduct internal operations to acquire, access, and circulate materials - and not on processing of the source information itself. Conversion into machine form of printed materials remains limited, although inroads have been made for computer access to selected journals, encyclopedias, reference databases, and other texts. Before textual information can be manipulated by computers in the ways that bibliographic records are, massive conversion of library materials must be accomplished. Plans, policies, retrospective text conversion (RETROTEXT?) projects, and powerful new computer systems will be required to provide masses of text online, as control of our knowledge base becomes a national priority and business goal during the Information Age.

The evolution of libraries beyond present uses of automated systems toward new roles in the Information Society will be influenced as much by business trends and librarianship's national presence as by the new technologies. Who will wield the technology for information control is the issue. The vision and innovation that produced the MARC format, integrated systems, bibliographic conversion methods, and other hallmarks of contemporary library automation were driven by the intellect and energies of librarians; the leadership of select libraries and key public and private funding organizations led the way then. Now the impetus for technological change has shifted to the commercial sector: the role of vendors is creative, that of libraries adaptive. The first wave of commercial library automation entrepreneurship is passing. Information conglomerates are buying traditional library automation companies, as business aligns itself for the Information Age. Financing of library inno-

vation has shifted from the non-profit sector to the business community, raising questions of how innovative library automation programs significant to the national interest will be conducted.

Many of librarianship's most capable leaders are engrossed by controversies over the governance of bibliographic utilities, rights to databases, and so forth. The creative energies that led to library automation as we know it are now consumed by implementing systems into libraries and confronting problems of network policy and management. Librarianship's attention to automation at the national level has refocused on chores of administration and adjudication. Sights once set on vision and innovation now rarely see beyond issues of implementation and operation. Librarianship is in retrenchment to absorb the technology it produced; leadership is lacking to ride the new waves of change.

Technology will march on, vendors will innovate, and libraries will adapt. Improvements in base technologies for data storage, computing power, and telecommunications will direct libraries' attention to further computerization of internal processes; greater sharing of systems, databases, and materials; and connection to local and external information sources.

Continued evolution of integrated systems --- particularly the online catalog components -- will uncover major shortcomings in sources and methods for distributing bibliographic and authority records, particularly for libraries with budgets too small for online bibliographic utilities or commercial cataloging services. Distribution of data on mass storage media (e.g., optical disks) will challenge current practices of online access to bibliographic and reference databases. Local area networks and gateway access to far-reaching telecommunications systems will require library computers to connect to a variety of information resources. New

concepts and designs for user interfaces must help avoid confusion over choices of access. A user at a terminal will choose among accesses to local online library catalogs and non-bibliographic files, other databases in the library's host environment, commercially provided databases attached to the local library system, and external online databases available through gateways to library and commercial networks. Already, examples of such connectivity can be found.

At the local level libraries must find new monies for enhanced information technology and services. Libraries will convert more files of local information, add commercial databases to local integrated systems, and connect to more external information systems. Beyond the online catalog as it is emerging today, libraries will engage in conversion and connectivity to bring a variety of new information resources to users.

At the highest level, librarianship should address the concept of national databases of machine-held text. The concern of librarianship with bibliographic automation should extend to textual automation: the logical next step of library automation is to computerize the sources described by bibliographic records. Librarians should take leadership roles in formulating national requirements, plans, and policies for retrospective text conversion and national systems for textual access.

It was once concluded that retrospective bibliographic conversion was too formidable and expensive to be conducted nationally. The ensuing duplication of effort and consequent expenses and legal turmoil provide an example to be avoided in development of national systems for textual access.