LIBRARIES, TECHNOLOGY, AND THE INFORMATION MARKETPLACE

SELECTED PAPERS

RICHARD DE GENNARO

Libraries, Technology and the Information Marketplace:
Selected Papers

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FOREWORD

Discriminating readers of the library press have learned to look forward eagerly to Richard De Gennaro's annual contributions to the professional literature. Once, or sometimes twice, a year for the past several years, this distinguished and articulate academic library administrator could be relied upon to produce an article of opinion for *Library Journal, American Libraries,* or one of the other major journals. His articles were sure to be well written, likely to be rather controversial, and certain to be widely discussed by librarians. "Have you seen De Gennaro's latest article?" has become something of a conversational staple whenever librarians gather.

If the measure of an author's influence is the extent to which what he writes is read and talked about, then Richard De Gennaro ranks unquestionably among our most important librarian-authors. As this collection of his papers reveals, he has an instinct for choosing topics that are timely, but not transient. Even in those few instances in this volume where the specific issue being addressed has shifted with the passage of time (as for example, in the article "Providing Bibliographic Services from Machine-Readable Data Bases: The Library's Role"), the problem analysis remains both cogent and remarkably relevant.

The enduring value of many of these papers derives in large measure, I think, from their author's unusual talent for penetrating below the surface of a current issue to address the underlying problem in a way that enhances our collective understanding of its significance. "Research Libraries Enter the Information Age," for example, obliges the reader to contemplate

the profound implications of the inescapable reality that recorded knowledge is *indeed* cumulative—a characteristic that librarians often refer to casually, but only rarely think very deeply about.

De Gennaro reminds us that it is important to penetrate below the surface of our daily professional and institutional environments so as to confront the fundamental and persistent characteristics of the library as a social institution. He teaches us as well to be suspicious of single, simple solutions to complex professional problems. In "Austerity, Technology, and Resource Sharing: Research Libraries Face the Future," he warns that our naive confidence in the capacity of technology alone to resolve the dilemma of research library growth is not only misplaced but also, in fact, diverts our attention away from the urgent need to formulate and implement more realistic acquisitions policies.

Like most ordinary mortals, librarians do not much enjoy being reminded that complex problems are rarely, if ever, amenable to simple solutions. But De Gennaro is a skilled docent whose carefully crafted prose keeps us coming back for repeated applications of reality therapy. We delight in his wry characterization of "research," in "Copyright, Resource Sharing, and Hard Times: A View from the Field," as a word "much overused to describe what professors do and what libraries support." And we nod in reluctant agreement when he speculates in "Libraries and Networks in Transition" on the existence of "a fundamental law of cataloging . . . that the effort required to catalog any particular book is inversely proportional to the amount of use it will receive."

But it is more than graceful prose that makes these papers worth collecting, preserving, and rereading. What is most valuable here for both students and practitioners of librarianship is the consistent vision of the social mission of the research library that unifies these essays on divergent themes. De Gennaro is clearly a man who understands both who he is and what it is that he, as a professional, is about in life. In a time when it is easy for even the best to lack all conviction, that is at once refreshing and inordinately useful.

De Gennaro's writings group themselves naturally under the three central themes that serve to organize this volume: the social role of the library, managing the library in a time of rapid change, and the impact of technology on library operations and services. All three themes are closely interrelated, as these essays

make apparent. Indeed, it is precisely the nature and the extent of that interrelatedness that is one of the most important understandings to be derived from reading this volume in its entirety.

This book reflects, as well, a unified and a unifying managerial perspective. It is not a systematic treatise on research library administration, although such a text from this author would indeed be a welcome future addition to the professional literature. Rather, *Libraries, Technology, and the Information Marketplace* does for the student of library management what textbooks are almost never able to do. It reveals how a thoughtful and effective library administrator comes to terms with the range of managerial decisions, both large and small, that are the actual substance and content of the library director's working day. De Gennaro's writings enhance our understanding of what it really means to devote a professional lifetime to *doing* library management, to filling the administrative role. As the author addresses a series of major technological developments over the past eighteen years, the reader comes to understand how an experienced library manager responds to, reacts to, and accommodates change within a context of institutional continuity.

These essays span nearly two decades of dramatic technological change in all types of libraries. The reader is able to trace in these pages the evolution of library computer systems from early mainframe-centered experiments with library automation at Harvard through the emergence of timesharing-based bibliographic utilities to the current era of networking and decentralization. The author exhibits a consistent talent for identifying and anticipating what have turned out to be dominant trends and directions in the development of technology to support research library operations. Not only does this volume provide a wealth of useful information about library technology but, far more important, it presents a useful way of *looking at technology* from a management perspective.

Richard De Gennaro has been no casual observer of the research library scene. His career has placed him at the center of development in three of the world's greatest research libraries: the New York Public Library, Harvard University, and, for the past sixteen years, the University of Pennsylvania. He has served as president of the Association of Research Libraries, as president of the American Library Association's Library and Information Technology Association, and as chairman of the Board of Gov-

ernors of The Research Libraries Group, Inc. He was the 1986 recipient of the American Library Association's Melvil Dewey Medal and is recognized nationally and internationally as a leader in the academic and research library community. Such a record of professional accomplishment alone would justify the publication of a collection like this one.

But this book is far more than a tribute to a distinguished career. No apology or justification is needed for the preservation of these papers beyond their own intrinsic quality and value. They are quite simply good and valuable reading for all who are concerned about the nation's research libraries—past, present and future.

Dr. Thomas J. Galvin
Executive Director,
American Library Association

PREFACE

This book is divided into two parts. The first part contains six previously unpublished pieces that give the reader some current perspectives on the principal subjects covered in the thirty-three papers that constitute the second part of the book.

The papers in the second part of the book span a twenty-year period and are largely about the implementation of new technology in libraries and the changing environment in which libraries operate. They are grouped in four categories and are arranged in reverse chronological order. They have all been published before, many have been reprinted in other compilations over the years, and several have been translated and republished abroad. The older ones from the early years of library automation and networking are clearly outdated in their original context. Why then should they be compiled and published again in this volume? Because I believe that the essays and papers taken together as a collection provide a unique and useful record of how librarians viewed and implemented the new technology during this critical transition period when libraries were entering the information age.

These writings document the evolution of our ideas and attitudes on a number of the important issues of the time such as relations between librarians and publishers and the emerging information industry, library automation and networking, and library management, among others. The twenty years covered in the collection was a time of unparalleled development for libraries, library networks, and the publishing and information industries.

Obviously, these essays and papers represent only a single

viewpoint and some of the views expressed turned out in retrospect to have been naive, shortsighted, or mistaken. It makes little difference at this point, however, whether the views were right or wrong. What is more interesting now is that this body of published material can contribute to our understanding of the various currents and forces that were shaping the future of libraries during these two crucial and exciting decades.

The principal audience for this book is practicing librarians, library school teachers and students, and anyone who wants to stand back from the plethora of confusing current trends, issues, and concerns and get a useful perspective on the changing role of libraries in the early stages of the information age.

This book is dedicated to my wife, Birgit, with love and gratitude.

Richard De Gennaro
Director, New York Public Library

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PART ONE

THE FUTURE IN PERSPECTIVE

SURVIVING TECHNOLOGICAL REVOLUTIONS

I read somewhere once that when the aging Prince Talleyrand was asked what he did during the tumultuous years of the French Revolution, the Terror, and the Napoleonic Wars, he replied simply that he had survived.

When I look back on all the technological revolutions that I have lived through since I became a librarian thirty years ago, I marvel at the fact that, like Talleyrand, I survived. Not only did I survive, but all the libraries that I have worked in have also survived, despite the many predictions to the contrary that I have heard over those years. When I think about the revolutions in technology that are coming in the years ahead, I am confident that libraries and librarians are going to survive, and that they will continue to bear their traditional names and carry out their traditional functions—to select, organize, preserve, and provide access to the records of human knowledge *in whatever form they take*. And increasingly, the form of those records will be electronic as will the means for performing library functions.

It is important that librarians keep their balance and their maps of reality up to date. If we have learned anything about technology in the last thirty years, we have learned that technological revolutions usually take longer than we think they will, some are less revolutionary than we expect, and some happen in ways that no one can anticipate. We have also learned that no one can predict the future, no matter how renowned a person may be in other areas of life. Each new technological development is hyped by a chorus of prophets as the basis for revolutionary change in libraries, society, or whatever. Revolution is one of those strong

words that has lost its impact in the field of technology because of overuse.

The computer revolution has been surprising and amazing librarians for over forty years and there is no end in sight. On the other hand, the much-heralded microfilm and ultra-microfiche revolutions of the 1950s and 1960s failed to deliver as promised. The Xerox revolution of the 1960s came unheralded and gave us a whole new technology for reproducing and disseminating information. The teaching machine and audiovisual revolutions of the 1960s and 1970s never got off the ground. Now the experts are telling us that electronic publishing will soon create the library without walls where everything will be accessible from any personal computer. That may be so, but I am skeptical.

We have to keep all these "revolutions" in perspective. The reality is that librarians cannot implement revolutionary changes in libraries. We have to introduce technological change in a way and at a pace that is acceptable to the communities we serve, and most communities will not tolerate revolutionary initiatives. They can be "educated" and led in new directions, but those directions have to be reasonable in reality as well as in perception. Universities are conservative places, and librarians cannot afford to get too far ahead of their constituents. They will not permit us to take undue risks with the libraries they have entrusted us to manage for them.

In the end, the future of academic libraries depends on the future of the institutions they serve. The wiring of universities and the way and rate at which they embrace and use technology will largely determine how libraries are wired and use technology. Libraries cannot set courses that are not in tune with the felt needs of the people and institutions they serve. Libraries serve teaching and research. As these functions change, libraries will change with them.

In song and story over the last two or three decades there has been a constant refrain from a parade of futurists, technologists, and assorted experts and library leaders exhorting librarians to embrace the new technology or be left behind on the ash heap of the technological revolution. They warn us that if we don't get with it and use the technology, other, more aggressive players will take over the library function and we will be left without a role. They are saying that technology exists to do things that need doing in libraries, but that librarians are too uninformed, too con-

servative or otherwise unwilling and unable to use it. This is nonsense.

My experience tells me that librarians have not only been eager (frequently too eager) to use new technology, but have actually been leaders in its development and use in the information field. Let me cite some examples. The National Library of Medicine led the way in computerizing the production of the Index Medicus and then developed Medline, the first major online bibliographic information service and the model for Dialog, Orbit, and BRS. Librarians developed the OCLC, Utlas, RLG, and WLN shared cataloging and network systems with their enormous databases. The Library of Congress paved the way for two decades of advances with its development of the MARC formats and database, and is now pioneering optical video and digital disk applications for library and information work.

The fact is that librarians are running as fast as they can to implement technology just as soon as it is technically feasible and financially possible. Libraries are not lagging behind in the use of appropriate technology. Automating libraries and building library networks has turned out to be more difficult and more complex than anyone imagined twenty years ago. And the technology required to do the job simply was not there at that time.

I can still remember how excited I was as a young librarian at Harvard in the 1960s about using computers and reprography to transform the library. My goal was to combine the library's computer systems and photographic services units into a single new department that would be the library's principal vehicle for change. I was convinced that the marriage of these two technologies would give us the tools we needed to bring about a revolution in library operations and services to users. It is twenty years later and that promise is only now being fulfilled with the symbiotic melding of computing, telecommunications, reprography, and several new generations of software. In retrospect, the revolution happened very quickly, but it took far longer than any of us thought it would.