Preface

With the development of computers and networking in the last fifty years, libraries, archives, museums, and other information institutions have gradually seen a bipolar split between the traditional and technological innovations guiding the fundamental nature of their information collections. Whether those collections are print, electronic content, multimedia, artifact, or more than likely a combination of them all, it is prompting them to drastically rewrite the book on the complete management of their user environments and the services they provide to patrons. These institutions must learn and adapt to the new information technologies that are establishing innovative forms of collection, collation, and dissemination of vast amounts of information at the same time actively seeking to combine their subject-matter expertise for improved services. Libraries and other informational institutions have an unquestioned dominance over these areas, at least in the mind of the general public, and must adapt to the new technologies constantly rolling off the IT developers’ drawing-board into the general market to keep this important edge.

It is the innovations in information dissemination, and not information content itself, that is mostly dictating the current changes in user environments, especially in today’s information saturated society. If libraries and informational archives fail in their role to keep up and to even innovate in providing novel ways to access the content of their collections for their patrons in user-friendly and popularly expected ways, and if the public perceives them to be antiquated, vis-à-vis the employment of new information technologies by non-library and non-educational information collections, such as social media sites and search engines, then these institutions will begin to forfeit public trust in their subject-matter expertise. Information technology companies, for-profit institutions who look upon information collections in terms of profit to their investors and not as a public service for the good of the community, will snatch up this fallen mantle of subject-matter expert and do what libraries could not, or would not do, for their patrons. Society will always have the need for information collection and consumption with or without the libraries, museums, archives, or traditional institutions we think of today, and we must always keep this bleak potential future in mind. We see this trend happening already with large, user-friendly information catalogues and collections such as Google and YouTube with many other companies closing behind. Let no library, museum, or archive doubt that the commercial jackals are circling them just waiting for the old and sick animal to die—they think they can do your job better, flashier, more responsive to consumer fads, and most importantly cheaper that you can, and they will do this by commercializing education and information access and scarifying the patrons’ freedoms and privacy. Along with the passing of the institution goes the title and professionalism of the librarian, curator, or archivist to be replaced by the IT professionals who maintain the information technology and collections of these large corporate information institutions and the customer service reps who push the product in the divine name of profit.
and the bottom line. The quality of the collections as the cornerstone of education will suffer under the shadow of corporate impiety and the gods of the capitalist’s “profit motive.” What was traditionally a public service espousing egalitarian concepts of universal learning will become just another commercial venture for the public to consume for direct or indirect cost, and the world, especially the poor and the underprivileged elements of humanity who have no money and are already barred from decent education in our country, would be much worse off for it. Without all of these institutions providing opportunities for self-exposed learning, education will lose its foundations and degenerate yet further into being a consumer product and become another slave to the “market.”

In these difficult financial times, public and academic funding is becoming more limited, and perceived antiquated functions of the public or academic community will be the first to go to the chopping block, no matter how traditional their roles are thought to be within society. Libraries and related information institutions cannot afford to rest on their laurels; just ask the medieval monks who held the 600 year-old monopoly on copying manuscripts and the occupation of maintaining most information collections before the printing press and a literate middle class. How many of these monks do we find around today copying manuscripts or managing archives and libraries? We must not let the libraries and other related institutions become the current-day renditions of the medieval monastic-scribe in our modern-day Information Age, too frightened by the times, too set in their ways, self-deceived into believing that they are too important in the fabric of society to be gotten rid of or replaced—the historical records show no lamentations for their passing. If we fail here, it is the information, learning, and public-domain knowledge that will suffer, and then all the patrons who look to our institutions for the educational foundations and preservation of their heritage that they desperately need more today than ever, that no other commercial organization will give them, at least not without a price or a sacrificing of their privacy—it is they that will be the victim. Failure cannot be an option.

OVERVIEW OF THE BOOK

To advert such imminent failures, our primary objective must be to adapt and overcome the challenges that face all of our institutions today—adapt our institutions, adapt our profession, adapt our tools, and services; all of them must be considered in the end, but this book will focus primarily on a few core concepts of the user environment: information technology integration for collection management through information collection, organization, and dissemination. A survey of current and new technologies and concepts, including contemporary library concepts, basic computing developments in the information technology field, deep reaching search engines, current networking trends, and the exploding use of social networking tools is a central piece to this book’s research and focus. During the course of writing this book, the constant focus was on achieving three goals while accomplishing the purpose of the title and supporting its conclusions:

- First, in providing a practical look at the institutions and collections of yesterday, today, and tomorrow, along with a survey of current and newly developed information technologies and what their effects are on the user environments and patron services of today. Surveys of the many currently applied technologies, including the use of social networking tools in the library, and the technologies that have impacted library patron services, collection management, reference, inter-library loan, and circulation will also be conducted.
The second goal is to add unique contributions to both the library and information technology occupations, where their mutual interest combine, informed by analysis and professional experience developed directly by working in the field. The four flagships of these contributions are a new research methodology—the NITA Methodology—for the library and technology fields and broad outlines of three new technology adoptions. These three technologies come in the form of unifying systems and adaptations to the full application of the technology in the library: a universal indexing system—the KATIE Index; a database model for virtual collection management—the LISA Informationbase; and finally a system for physical collection management—the MEL System. Each of these developments is extensively dependent on leveraging modern information technologies in order to be used as powerful tools that will help shape our future user environments both physical and virtual, particularly in the library and information institutions in general. Together, all four developments can be combined for systematic and synergistic improvements to the library institution through the new approaches of Information Expertise (IE); specifically, it will help to pave the way for the addition of other technologies and changes well into the futures of the institutions that have the discipline to learn and integrate them.

The third and final goal is to include the forensic information of all the libraries and institutions reviewed specifically for this work. Forensic information is any systematically documented information discovered by the application of the NITA Methodology in answer to an inquiry. Of course, readers can reference the use of cited secondary sources as needed in the appropriate sections discovered by other forms of systematic analysis, as they are important contributions in and of themselves, but the forensic information uncovered constitutes a serious progression in the research by offering an original and contemporary view of how some libraries and other institutions approached the control of their user environments—practices both good and bad—through use of information technology and collection management in our Information and Digital Age. The research vehicles applied to generate our primary sources was that of the case study and interview formats. All these forensic information sources are included within the second section of the book.

Other than the structure provided by these three coordinated goals, another unique strength of this book is the close collaboration it represents between two professionally different, almost ideologically opposed, occupations when it comes to the role and use of current and developing technologies. These two odd partners are the library field and the field of information technology. In their professional partnership, they both play the largest roles in making possible the knowledge centers of today, whether they are traditional libraries or online popular encyclopedias, and in determining these institutions’ futures. At different times, I was a professional in each of these occupations, first working a satisfying career in the library field in both the reference services and collection management areas of academic and public library systems, and then migrating to the IT profession to build and support the entire technology gamut of user workstations, networks, and servers that compose the core of any institution’s entire IT infrastructure. Bring to the table this unique combination of training and extensive work experience in both fields, the reader may benefit from both of these outlooks and the analysis, synthesized conclusions, and proposed solutions generated from them. This cross-professional amalgamation lends itself to a book that is a unique hybrid allowing more insights and deeper analysis than any one highly experienced professional in either field solely through researching the other side of the proverbial coin. Research is important but only as an aid to and not a substitute for application and the experience we can draw from its results.
THE FOUNDATIONAL CONCEPTS OF THE BOOK

In the past, the library’s mission was limited and many of its aspects were unquestioned, but as our societies and cultures continue to remodel themselves by these social and information revolutions, the role of the library and other information institutions increases in importance within the academic and the public communities that we build and live. This heightened importance is good for the institution but offers new challenges that must be faced and overcome. The traditional approaches fail to address many important elements of the library space and the needs of patrons in our changing societies. With the inescapable presence of the Information Age and the breakneck speed of new technologies being introduced into the general market, these digital technologies make access to information ubiquitous to the connected individual. Our patrons come to us requiring more and diverse services, and access to the space and technology developed to provide those services, in ever-changing and sophisticated ways. In short the library space has grown from more than just a building to store and subsequently find physical collections of books and other artifacts of information, it has become a center of learning and social interaction to the patrons and communities it serves. The library professional has become more educator, purveyor of learning, and information curator than custodian of books. Times have indeed changed for our libraries, and they will continue to change.

Though these new challenges are diverse, the largest of them loom in the areas of information management and access, harnessing technologies available to the general public–areas that the library field has fallen the farthest behind in its developments. Identifying these areas as the most in need of new techniques, skills and technology, the focus of this book and its research is in collection management and information space planning–both physical and virtual–and the information technologies that affect and feed all of it along with the patron environments it stimulates. In order to implement these developments fully and assure future adaptations, the library professional has to fully embrace the information expertise that has always been core to their skill set. Information expertise has to be recast as the keystone skill to the entire way of employing their abilities, and this must include mastering the information technologies directly related to content management, storage, and retrieval–skills traditionally assigned to the IT profession. As the library professional adopts these skills, they will evolve into the frontline experts of the information revolutions, specializing in designing and maintaining the collection, preservation, and delivery of content to the patron in all its many forms. The process of translating a library’s vision and mission, community growth projections, current and potential future technologies, along with the needs and expectations of library users into usable and beneficial services is a difficult one. Developing the idea of “library as a place, social and academic” is an important part of library design and selection of information technology–and one of the core theses of this book. Planning for new libraries as well as renovations of current institutions requires an understanding of that library’s unique patrons against the backdrop of the prior mentioned considerations, so I have endeavored to wed together the two foundational elements of patron needs and physical space, collection, and technology in the direction of the research and composition of these concepts.

One of the most significant changes that have occurred since the first library opened its doors is that of the library user–they are the engine of our continuous progress. Patron’s needs have evolved along with the technology and capabilities of information access and creation, another important area of change affecting the library space. Patrons are no longer merely the consumers of information; they are creators of it at levels never before seen in humanity’s history. Digital technologies and use of complex discrete systems have created library services never before considered in the past; as well as, new ways
to provide more traditional services that were previously believed well defined in the profession. What is the critical impact of these digital technologies and systems on the library user? Asking this important question and analyzing the effects of these technologies on the 21st century library user is extensively considered in the book. The answers found directly cast the basic principles of information expertise.

Learning environments and learning spaces are one focus of the new library space designs—and an extremely important one at that. Learning happens in many different ways, and therefore, it requires various types of spaces in which it can happen. We will also examine past and current library space planning theories and considers what can work more effectively today and into the future. Case studies and reviews of several public, academic, special libraries, and online databases are included and analyzed first hand in the research. Also examined are the bookstore models, online retailers, and for-profit online databases and public search engines as they too are faced with many of the same issues confronting libraries in their own goals of better understanding and building customer satisfaction for increasing profit-margins. In many cases, their innovations and implementations of marketing, branding, public presentation, and social designs have far surpassed those of their not-for-profit cousins and offer many valuable and translatable lessons for the library of yesterday to become the library of today.

Based on this book’s research and understanding of issues facing libraries, new technologies in traditional space management and data organization in both the physical and expanding virtual collections are introduced throughout its chapters in order to provide real solutions to real problems facing all our varied information institutions today. Successful employment of these technologies will help shape the user environment and better enable the library to focus on adaptations to future trends. Although, this is a double-edged blade—in order to harness these new technologies as well as many others in the IT field, the library professional will have to grow and evolve, learn new skills, and retire or reformulate old ones. The old ways as they stand are no longer valid, though many of their discoveries and practices must be brought into the present to build a strong foundation. The current and future library professional must become an expert over the flow of the vast amount of information that is today’s library and society—a term called information expertise. Along with my professional experience working in both the library and IT fields, alongside the collaborations with many professionals in both of these areas adding their unique and different educational and professional expertise, this diverse information-based background helped me formulate the basic principles of information expertise and lend credence to my approach found throughout the material.

Primary research is the main vehicle of analysis I have adopted and use most in developing the concepts of this book, augmented here and there with established secondary research as needed mostly allotted to a historical study of past practices and concepts. The reason for this approach is two-fold: first, there is a dismal lack of study in the areas that this work covers; second, my need and desire for fresh information in order to develop many of the new concepts and paradigms included in the book. I have no wish to propagate and conserve old methodologies that have led the library field into the period of irrelevancy that it currently now finds itself stuck, but in order to know where we must go, we must first start with a thorough understanding of where we are and where we have been. There are many secondary sources that propose solutions to the issues that we face in the field, but since they have not reached deep market penetration or implementation in the institutions, they too are not really considered in this book. In essence, like an engineer, I wanted to study the institutions directly and draw my conclusion off the practical situation, so those who are seeking a comprehensive survey of newly proposed technologies will be disappointed—I will make no such review here. When possible, I also published the
raw data and case studies alongside, or as addendums, to the applied results with the firm belief that the original data is just as important as the lessons and conclusions drawn from it. Secondary sources and research are cited accordingly.

**BRIEF INTRODUCTIONS TO CHAPTERS AND SECTIONS IN THIS BOOK**

**Chapter 1**

The liberation of learning is a prelude to the expansion of the personal conscience—this expansion is the first of two of the only natural freedoms given to the individual, the other being the employment of one’s physical, mental, and emotional abilities in accord with that conscience—and becomes the foundation of all other rights and corruptions that both bless and plague every society ever created by mankind. This is fundamental and explains why universal learning is necessary for any kind of progress in the way we see, think about, and treat one another and the World around us. For every book somebody wants you to read, there is a book they do not want you to read—both can be found at the library. Let that sink into your thoughts for a moment, its meaning. That is the “library,” its very concept, and this is what it has come to represent in the minds of millions of patrons. It is a fine heritage matched by no other institution, and one that all its workers should be proud to be a part of and hopefully protect and perpetuate. This introductory chapter covers a few brief insights into why I wrote this book—subjective motivates and goals guiding its completion. The chapter is concluded with a light historical review of the pivotal technologies establishing the foundation of information technology leading into the Information Age and paving the way to changes in the library user environment.

**Chapter 2**

Libraries and related information institutions cannot afford to rest on their laurels. The primary objective is not to fail, but to adapt and overcome the challenges that face all of our institutions today—adapt our institutions, adapt our profession, adapt our tools, and services; all of them must be considered in the end. The library user environment and information management, leveraging and developing them to support superior patron services, becomes the primary focus of information expertise and is what the library professional must evolve into in order to remain relevant and thrive in the Information Age. With information expertise as an engine, the library field can guide the development of new technologies providing information services. But only a developed and utilitarian system can bring about technology when applied by skilled and intuitive professionals. Such technology, understood as a practical process or tool for use in the everyday world by overcoming the rigors of real life, is established by the testing, observation, and documentation of accurate data for adaption of working theory to those of real-time results and efficient production/reproduction of the finished product for purposes of a general application—the introduced NITA Methodology as a key pillar of information expertise is this system. Surveyed in this chapter are the developments in approach and methodologies needed if the library field is to thrive into the future.
Chapter 3

Today’s sophistication dictates that we assimilate all the critical functions that assure the viability of the collection under one comprehensive concept of “collection management.” These individual processes not only have to be developed to a high sophistication on their own, but also be integrated into a comprehensive system complete with supporting technologies and guiding methodologies. In a diverse library collection, these core processes of collection management would be broken down into the following workflows coordinated together: content management, physical space management, and virtual space management. Management of a physical space encompasses its space management, collection layout, and the physical and efficient access to the stacks. Content management—this overarching purpose and vision of the entire collection is what some library professionals confuse as the sole component of collection management—is controlled through content selection including purchasing and weeding, quality control of the shelving order, and the institution’s indexing system for information access. The elements of management most important to the virtual space management are data-portal access to the content, maintenance of the information technology infrastructure, and the database model and its management system used to store and manipulate the data in its electronic form. Surveyed in this chapter is a selection of those important and driving technologies and changes.

Chapter 4

Along with the shift from print to digital formats, information technologies are significantly affecting today’s libraries. New technologies and concepts such as mobile devices, social networking sites, communication and interactive tools, and other Internet technologies are changing how libraries serve their patrons as well as how users interact with libraries and each other. Each technology has impacted the library user and the user environment so much so that today’s library is said to be everywhere. Wherever the user can go with their mobile device and access the Internet, and therefore the library OPAC, it can functionally be said that they are at the library, for the collection, user services, and library databases is where the library is located, not the brick and mortar structure. This increased access also raises concerns over online information security and privacy, and the conscious Internet user needs to be aware of the dangers and take the necessary steps to mitigate them. The concept of change is another element of these new information technologies—embracing it, for technology is always changing as new ideas spark new revolutions in development and libraries must change along with them. All information institutions must learn to ride these waves of change instead of being pulled along, half drowning, by the undertow. Learning to both integrate and inform patrons on how best to use these technologies becomes an important part of being an information expert. Surveyed in this chapter is a selection of those important and driving technologies and changes.

Chapter 5

Data organization is an area of research and development, which has, oddly enough given that this is the Information Age, stagnated almost entirely in the library field. With the massive addition of virtual collections and the steady expansion of print and multimedia publications, the desperate need to develop more efficient indices handling the organization of ever-larger amounts of data is mandatory for continued progress in any meaningful way of collection development. This field has been dominated
by non-library organizations, such as governments and corporations, leaving libraries woefully behind. Eventually, massively joint collections developed in a mostly virtual environment, accessed mainly through networked portals such as through the Internet, must come to grips with a truly universal index that spans both the physical and virtual material. The days of LOC are gone—it is a labor intensive system totally unprepared to harness today’s and tomorrow’s information technology. The new indices must be primarily automated and user friendly, harnessing all levels of traditional inventory control—balancing each level’s weaknesses with their inherent strengths. We have the levels, we just need to re-formulate them into a stronger matrix, scalable to current and future information technologies. Outlined here is one such indexing technology: the KATIE Universal Indexing System. Surveyed in this chapter is a review of this driving technology and its applications, covering the NITA Methodology Stage-I, Stage-II, and Stage-III in its developmental process.

Chapter 6

Collection space management is an important endeavor to any collection that is heavily composed of physical material. Books on shelves covering vast areas of stacks can quickly get out of hand, space wise, if solid technology and practices are not implemented in its management. Weeding and stacks expansion can be great tools, but will prove increasingly less efficient as the collection becomes more chaotic. Shifting is the only tool that can restore order in this case. With this understanding, it is a great advantage for any library professional and library administrator to become aware of good practices and applications of shifting technologies in order to take control over and guide the user environment in their own institutions. Operations, such as shifting large physical collections and developing effective techniques to do it, have not been, and continue to remain an important topic neglected by the library field today. A new paradigm of space management, developed through extensive planning and field applications and designed from the ground up, for shifting large physical collections is outlined here—called the MEL Space Management System, or in short, the MEL System. Surveyed in this chapter is a review of this driving technology and its applications, covering the NITA Methodology Stage-I, Stage-II, and Stage-III in its developmental process.

Chapter 7

Database technology is highly developed for the many uses that it employs; although, tomorrow will hold new challenges and demands that it is ill-equipped to accomplish. The rigors and demands of the current Information Age pushes information systems to develop more universal solutions not pre-established on the proprietary demands of capitalistic conceptions. In the Information Age, the ever-increasing need for more data processing capabilities becomes inherent with the times, and with the addition of the Digital Age, it is assumed that increased data processing will continue to be conducted by discrete electronic computing systems and the many forms that they will take. The continued development of more efficient data models, and the database systems designed to leverage them, will become the chariot bringing forth the climax of the current times and the dawning of new endeavors for human curiosity and our willingness to learn and explore ever further into the beyond. Tackling these issues is the direct purpose of the LISA Universal Informationbase System (the LISA Informationbase), to effectively integrate data of diverse variations and in a semi-ubiquitous structure to increase data automation of information content
for use by our patrons in a powerful database management technology. Surveyed in this chapter is a re-
view of this driving technology and its applications, covering the NITA Methodology Stage-I, Stage-II,
and Stage-III in its developmental process.

Chapter 8

This is the Information Age, and that epicenter is information flow and content control. This is the one
occupation that is best suited to benefit from this still evolving epoch of human history. In fact, any or-
ganization that fundamentally relies on information dissemination as a core resource to their production
would seek out information experts as the de facto experts in this field for consultation on how best to
handle their large volumes of information. Today, companies are searching for these very professionals
and will pay extraordinarily well to have such expertise in their organizations. As long as they change
their mindset, evolve from conservative ideologies of what a library professional is, and retain and im-
prove upon the traditional library services while seeking to develop techniques and technologies that
effectively handle the workflow of the information dissemination process in a Digital Age–adapting
technologies such as the KATIE Index, the MEL System, and the LISA Informationbase for the physi-
cal and virtual collection management requirements–most library professionals will be able to focus
on becoming information experts and establish their relevance at the very epicenter of business and
education. Evolving into the information expert and leveraging new information technologies is where
the future of library studies lays in this digital segment of the Information Age. This chapter concludes
the first section of the book.

Section 2

Section 2 of Primary Sources serves as a repository of the forensic information used throughout the
book. It is broken down by three models, which are unique treatments of the modern user environments.
Our research tool of inquiry was the case study and a modified interview format, which the researcher,
Lisa Block, MLS, called a showcase. A basic template was used as the backbone to every case study and
interview in this section, which accounts for the standardized information lay and question-answer feel.

THE ROLE OF INFORMATION TECHNOLOGY IN THE
LIBRARY USER ENVIRONMENT AND VICE VERSA

In the Information and Digital Age we are in, integration of computers and online information portals,
typically accessed through Web browsers, and most recently within the last few years, interface-specific
apps on smartphones and ultra-portable tablet computers, have become major elements driving the
future of the library user environment in addition to the traditional features that will continue to be the
mainstay of the institutions. One of the first informational institutions to take full advantage of the new
revolutions in information access via networks and information technology were the subscription da-
tabase companies such as JSTOR, LexisNexis, Elsevier, and others of their kind. For-profit businesses
and highly business-orientated not-for-profits collectively saw that the then new Internet technologies
opened up considerable potential for deeper market penetration via online access of their products and
services. WorldCat, which is currently owned and operated by OCLC (Online Computer Library Center,
Inc.), moved pretty quickly to exploit new digital and network technologies on the cusp of their development and public availability since 1967 (Fox, 2006), and the consortium remains somewhat innovative even today, especially for a not-for-profit, library-based organization—rare in our field. As computers and Internet access became largely common in most library patrons’ homes, many library systems moved to have a Web presence and portals for information access to their catalogues and patron accounts online. As well, many patrons came to expect computer and Internet access at their library branches, and libraries had to rearrange their floor plans to accommodate the new computer cubicles and computer/technology labs. Recently, libraries have been making available free wireless access to the Internet mostly through Wi-Fi technologies—though other competing technologies are just around the corner—for patrons who bring their own laptop, netbook, and tablet form factor mobile computers, as well as smartphones. Though not necessarily expensive if implemented in the right manner, all these evolutions in the user environment require an investment in new technology and IT support for these institutions, to include a rethinking of the commons areas for the entire library layout in accommodation of the new services in integration with traditional library services.

Library professionals and administrators must be in general aware of the new information technologies continuously being developed for the public market, for it can be assured that their patrons always will be. We need to get in the habit of considering this cursory knowledge as part of the librarian’s professional skill set. Companies and public organizations that move the quickest to utilize these new technologies and re-form their user environments around making them user-friendly and easily available to their patron base will gain the attention and interest of their patrons and increase the perceived importance of that institution for the benefit of the public good. For library institutions, this means increase funding from their controlling organizations—in public libraries, the governments in which they are under, and in academic libraries, their university boards. Bookstores can be added to this list as well, for they are accountable to their customers and their willingness to give them their business in the traditional for-profit business model. Utilizing these new digital and networking technologies and adapting user environments for greater flexibility does not always have to be an expensive endeavor. It is only expensive for institutions, and especially administrators, who do not want to take the time to understand the ever-changing user environment. This is the conundrum that faces all organizations in an open-market, the more you want outside professionals to take care of the solution and not rely on your own abilities to comprehend the objective, the more it will cost the organization—remaining ignorant is a privilege that always carries a high price tag. Throwing money at a problem, by definition, is always expensive and tragically always seems to be the preferred solution of well-meaning, but technologically phobic library administrators and planners.

The sad truth is that if new market technologies where expensive, the general public would never adapt them into their everyday use, no matter how helpful they could be. Computers had been around since World War II, but the general public did not start buying them in larger volumes for home use until 1981 with the advent of IBM’s PC (personal computer) series and pioneering computer engineers like Apple’s co-founder Steve Wozniak’s ambition to make computer hardware affordable to the general public. A simple Website, cheap to produce and maintain, becomes the cornerstone of a library’s drive to have an effective Web presence for their information access, patron accounts, and services, yet I still come across large, mostly university libraries—perhaps they have more money to waste—insisting on dropping hundreds of thousands of dollars, perhaps even millions, on expensive software packages and third-party IT products and support that does not even satisfy their patron’s technology needs. The only difference between an inexpensive and superbly effective technology solution and the expensive,
yet in general unsatisfactory, technology solution is a general knowledge of the current state of information technology during selection and implementation of the technology by the policy makers of the information institution. Training your library staff, or even better having the library staff design the new system themselves via software designers doing the coding and software development work, to use the new technology and in turn instruct patrons to properly use it is important as well, for obvious patron service and user environment reasons. The fact that this developmental strategy rarely occurs shows a haunting inability for library administrators to be in touch with operational librarians and other library professionals and staff who are interacting directly with the institution’s patrons on a daily basis. This is a reality that must change today, yesterday. To assist in this transition, I have included a later chapter surveying the current digital and networking technologies available on the general market and the next generation of information technologies about to come off the production line.

THE ROLE OF COLLECTION MANAGEMENT IN THE LIBRARY USER ENVIRONMENT

Much like the use of information technology within all the various institutions—whether libraries, archives, museums, research, and educational centers—the sole purpose of all their collection management systems are geared towards efficient information dissemination and promotion of collateral discoveries by the user patron. Though collection management is a traditional library operation only augmented by new information technologies, preservation of the information is secondary, and storage is tertiary mostly accomplished in securing the first two purposes when it comes to the nature of the institution’s collection. This order of priority is important to note, as it becomes the delineation between a library, an archive, and a storage warehouse. As an illustration of this point, a library could be a vast warehouse where we neatly stack all our books in perfect little vertical columns, yet unordered and not catalogued except perhaps for the order of reception. Such a Mad Hatter-like collection would achieve the secondary and tertiary purposes extremely well, the books are preserved and stored effectively, maximizing both space and time of shelving, and some colloquial wisdom might say that two out of three is not bad, but it fails miserably the all-consuming primary purpose: efficient information dissemination, the cornerstone of the institution. With such a system of collection management violating the necessary order of priorities, good luck finding any particular book you want out of this monographical haystack. Effective collection management systems must have these three priorities and in their appropriate order to be effective and efficient. The library profession needs to have the courage to reject all other systems that do not adhere to this occupational reality. Sadly, some professionals uphold traditional ways of doing things in the face of changing realities in information dissemination and collection management practices; especially, as new information technologies become available to institutions and the general public.

Not surprisingly, good information technology systems that manage the virtual data in online databases use this exact same litmus test as applied to their physical collection counterparts, even though they do not have to contend with physical publications or tangible artifacts taking up physical space on the same scale. The theories on good database architecture reads remarkably like the manuals on physical collection indexes, particularly once one understands the difference in terminology, interfaces, background, and methodologies behind both fields of study. The focus is always the information, and the fundamental nature of our consumption of it, that becomes the bridging gap between these two seemingly different collections in relation to evolving user environments. If this focus is lost, then the systems applied will
not adapt adequately to emerging technologies, and they run the risk of being rejected as antiquated by
their users. Even social sentiments has its limitations in protecting such hollowed, yet narrowly use-
ful and inflexible, ways of operating if that operation depends on scarce public or corporate funding,
particularly in a recession or sluggish economy. As long as we develop techniques and technologies
that effectively handle the workflow of the information dissemination process, as are developed in the
later chapters of this book, most librarians can focus on developing information expertise and assure
their relevance at the very epicenter of business and education through controlling the information flow
and assuring content quality for their patrons. In fact, any organization that fundamentally relies on in-
formation dissemination as a core resource to their production would seek out librarians as the defacto
experts in this field for consultation and employment. Even today, companies are searching for these very
professionals, and though many occupations have sought to corner this market, particularly the business
and IT fields, coining ridiculous amounts of special terms and literature in order to fool organizations in
thinking that they know what they are talking about, no one has the foundational expertise in informa-
tion management that today’s librarian does. Unfortunately, due to the professional insular nature of the
library field, they have not tapped into the true market potential of their occupation. The skills sets of
information expertise will assure that the future of library studies remains both effective and productive
into the Information and Digital Age.

Joseph Walker
IT Consultant, USA

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