Redesigning library services: A manifesto (Abridged). In: *Planning our future libraries: Blueprints for 2025*. Kim Leeder, Eric Frierson, ed. Chicago: American Library Association, 2014 [published 2013]. Appendix, pp 109-120.
This a summary of Buckland, M. *Redesigning Library Services: A Manifesto*. Chicago: American Library Association, 1992. Isbn 0-8389-0590-0. Open access at
http://sunsite.Berkeley.EDU/Literature/Library/Redesigning/ and
https://openlibrary.org/books/OL22099672M/Redesigning_library_services

Redesigning Library Services: A Manifesto (Abridged)
by Michael Buckland

Introduction

The central purpose of libraries is to provide a service: access to information.

The good news is that additional, different means for providing library service are becoming available in a manner unprecedented since the nineteenth century. The challenge for all concerned with libraries is to determine how, whether, and when these new means should be used.

Much has been written in recent years on the possible impact of new technology on "the library of the future." This is nothing new. It could be that long- term visions have a beneficial effect in stimulating debate and thought. However one may suspect that little of the rhetoric and few of the specific technological proposals have been of much direct help to those with the heavy responsibility of planning for the future of any particular library. The problems of existing libraries are severe. Visions of electronic libraries seem uncertain and suspect. Even if such a vision seems good, it is not at all clear that plausible paths of development from here to there have been adequately mapped.

Redesigning Library Services has been written on three assumptions:

1. There has been insufficient attention to *strategic* planning, that is, the making of decisions relative to a three to ten year time frame.
2. A disproportionate amount of attention has been paid to new information technology.
3. There is, in fact, considerable experience on which our strategic planning can be based, more than is generally realized.

Suppose that one were charged with making recommendations concerning the development of a library service over a three to ten year range, what sort of conclusions might one be justified in reaching? The purpose of this book is to suggest some general bases for planning or, at least, to provide a general framework for thinking about future library services.

The purpose being pursued in library service is the provision of access to books, journals, and other informative materials. Libraries have never had a monopoly since much of what is in demand is also available in personal collections, bookshops, from personal contacts, and, indeed, from other sorts of libraries. However, even if it is not a monopoly, it is clearly the major role and niche of library service. Now, in addition to the customary difficulties in providing library service, the radical changes in the technology available as *means* for providing service leaves the future unclear.

In such a situation we need to be prepared to retreat to first principles. Library service is a busy, service-oriented activity, with a deeply-rooted emphasis, reflected in the professional literature, on practical and technical matters, on means, rather than on ends, and tactics rather than strategy. Nevertheless, there is currently a healthy awareness that major changes are likely

and a recognition, for example, of some convergence between library services, computing services, and telecommunications services, of probable changes in the publishing world, and that library management is, at least in part, concerned as much with the management of service as with the management of books.

Three Types of Library

The following three types of library provision, based on the technology used, provide a convenient framework for discussing future library service.

Until recently libraries' technical operations (e.g. purchasing, processing, cataloging, and circulation) and library materials (primarily texts) were both based on paper and cardboard: We call this the "Paper Library." Strictly speaking, libraries have always included materials other than paper such as clay tablets, vellum, film, and so on, but these other media make little difference for our present purposes.

Over the past two decades, libraries' technical operations have become based on computer technology while the library's materials still remain overwhelmingly on paper and paper-like media: The "Automated Library."

The prospect that library *materials*, as well as library operations, will increasingly be in electronic form indicates a further change in the means of library service: The "Electronic Library." See Table 1 below.

Table 1. Technological Bases of Library Operations and Materials

	Technical Operations	***Library Materials***
Paper Library	Paper	Paper
Automated Library	Computer	Paper
Electronic Library	Computer	Electronic media

The concept of the Electronic Library is important because library *materials* will increasingly be available in machine-readable form, users will need access to them, and *access will, therefore, have to be provided*. One can speculate about the eventual balance between paper materials and electronic materials or, if one wishes, on the prospects for paperless libraries, but these issues are of little significance compared with the underlying assumption that arrangements for access to some materials in electronic form will have to be provided. Today libraries are, or are becoming, Automated Libraries, with the imminent prospect of needing to evolve, at least in part, into Electronic Libraries. Since paper documents (and other non-electronic media such as film) seem unlikely to disappear, we may expect the Automated Library and the Electronic Library to co-exist indefinitely. More specifically, we can expect, and should plan for, any real library service to be a blend: part Automated Library and part Electronic Library.

It seems that the relative stability of the past century is but a prologue to another period of radical change, comparable in significance to that of the late nineteenth century with its exciting renaissance of ideas and techniques. This time change is enabled less by new ideas than by a change in the underlying technology, which is all the more reason to reassess our assumptions about future libraries. As operations and services become more complex and more capital-intensive, ad hoc, unsystematic decision-making can lead library services down unproductive paths. Correcting mistakes becomes expensive and disruptive.

Creative planning needs to be central, because of the superiority of planning over merely reacting to events. We—funders, providers, and users of library services—need to reflect creatively on what we do and why. Planning offers us a chance to create the future.

The Paper Library

Library services as we know them best are based on the technology of paper. Card, as in card catalogs, is but a stiff form of paper. Libraries' technical operations are steadily being computerized and, thereby, paper libraries are now being transformed into what we are calling Automated Libraries. The Paper Library proved effective and durable for an extended period. Nevertheless, the serious limitations of the paper library need to be reviewed explicitly if we are to make an informed and balanced appraisal of the other options, the automated library and the electronic library.

1. Paper is a strictly localized medium. It and the user must be in the same place at the same time.
2. A single paper document can, in general, only be used by one person at a time.
3. Paper copies of documents can be made by reprinting and by photographic and more modern reprographic means, but the same limitations apply to a copy as to the original.
4. Paper as a medium is rather inflexible. Paper documents really do not lend themselves to being merged, divided, reformatted, and restored to earlier versions.
5. Collections on paper become bulky and create storage problems.

The localness of paper documents remains an unsolved constraint. A consequence is that each library collection is more or less skillfully selected to match the needs of those using it, which is a great advantage over finding oneself in a vast warehouse of indiscriminately assembled materials, whether paper or electronic.

Librarians and library users have long wished for rapidly-available, inexpensive facsimiles. Television was promptly recognized, at least as early as 1925, as demonstrating the potential of electronic telecommunications for remote access to library materials. "But what a revolution for information retrieval and especially for libraries television can bring," exclaimed the German librarian Walter Schürmeyer in 1935. "Perhaps one day we will see our reading rooms deserted and in their place a room without people in which books requested by telephone are displayed, which the users read in their homes using television."

The Automated Library

We use *Automated Library* to denote a library in which the collections of library materials are primarily on paper but in which the library's *procedures* have been computerized. Libraries are very record-intensive: Not only is each title different but, for many purposes, the records needed for library operations must necessarily be very concerned with *individual copies* of each title. A circulation system must know precisely *which* copy of *which* volume of *which* edition of *which* title was borrowed by precisely *which* borrower and *when* it is due back. Considerations of service, of cost, and of the humane use of staff all argue for the use of computers to ease the burden and to increase the effectiveness of handling library records.

Bringing order to chaos and achieving collaboration both depend on shared understanding: on standards. Library service has long depended on shared standards, of which the adoption of standardized cataloging codes and standardized subject classification schemes are two very important examples. These two examples and most library standards may facilitate

automation and make computerized procedures more cost-effective, but they have little to do with computers directly.

The sensible alternative, for anyone interested in using computers, was to try keep the advantages and to delegate the inconvenience. Instead of withdrawing from one's local on-line catalog in order to use another, one would prefer to command the local on-line catalog to extend the search to other on-line catalogs elsewhere on one's behalf and to retrieve and to present the results.

Experience with Library Automation

Paper Libraries of any size now either are or are becoming Automated Libraries. We have some familiarity with what is involved. In brief, the change from the nineteenth century design of the Paper Library to the Automated Library has been characterized by:

- standardization of data,
- remote access to files,
- the linking and combining of files,
- access to numerous different files from the same terminal,
- increased cooperative use of shared files,
- discontinuation of numerous, more-or-less duplicative local files,
- greater capability for doing things to and with the (computer-based) files, and
- increased vulnerability to technological failure.

The Automated Library perpetuates some of the problems of the Paper Library noted in the previous chapter. Because the collections of documents are still on paper, a localized medium, the need for local collections, the space needed for paper documents, the inflexibility of paper documents, the separation of documents from the users, opening hours for the collections (though no longer for the catalog), and competition for use of copies of documents all remain as much a problem in the Automated Library as in the Paper Library. The catalog may be used in a number of places. In particular, with remote access to the on-line catalog, the user is no longer separated from the catalog and the separation of catalog and documents is somewhat diminished since, online, a catalog can at long last be used in the bookstacks.

The Automated Library represents a significant improvement but for only some of the problems and, aside for the online catalog, benefits directly those who are *providing* the service rather than those who are *using* the service.

The Electronic Library

We use the term "Electronic Library" to describe the situation in which documents are stored in electronic form, rather than on paper or other localized media. Note that paper copies of electronic documents, or of excerpts from them, can generally be produced for the reader's convenience. However, the essence of the Electronic Library is that documents are stored and can be used in electronic (or similarly machine-readable) form.

The adoption of computers for libraries' technical operations, the transition from the Paper Library to the Automated Library, can be viewed as an evolutionary development. Much of the change represented, at least initially, the mechanization of previously manual procedures of the Paper Library. The changes have been, at least until the provision of on-line catalogs, mainly for internal efficiency and for the convenience of library employees. In contrast, the rise of the Electronic Library, in which materials are stored in electronic form, may seem more revolutionary than evolutionary because of the implications for the provision and use of library

services. But is it really so radical a change? Where are the impacts on the provision of library service? How are we to achieve a graceful and efficient continuity of service as electronic documents come into use?

The Increase of Electronic Documents

The most obvious source of electronic documents is new publications issued in electronic form. But what of the older materials on paper that occupy so many miles of libraries' shelves? Libraries have undertaken a major, systematic effort at the retrospective conversion of older catalog records from cards to electronic records. What of the retrospective conversion of the texts of older paper documents themselves? The idea might seem wildly unrealistic, but there are grounds to believe that, over time, significant and increasing amounts of older material will become available as electronic documents. In selected areas, notably literature, texts have been converted for research purposes: All classical Greek texts and increasing quantities of medieval and modern literary texts are already available in electronic form. Devices have been available for some years that can scan printed material, derive digital versions, and "read" the text out loud for the blind and visually-impaired. The same approach can be used to convert paper texts into electronic form as an alternative to keying them when an electronic form of the text is needed for word processing purposes. These electronic copies are usually discarded or, at least, are not made systematically available. They could be.

Reinventing the Library

What are we to do with a document in electronic form? There is little choice but to do the same as we do with a paper document or with microfilm document:

- Catalog it and, as with manuscripts, pay careful attention to which version or state of text it is.
- Store it in some accessible place.
- Give it a call number.
- Ensure that pertinent bibliographic and location data are accessible in or through bibliographic databases.

There seems no real alternative. Given that electronic documents exist and are becoming progressively more important, to ignore them would be to provide a progressively less complete library service. A library administration might choose to retain an exclusive concentration on paper, microfilm, and other localized media, but that would mean that access to electronic documents would have to be found through other channels, such as the computer center. The result would be a split in the provision of library service: the "library" providing access to only some kinds of documents; and another organization providing the balance of the library service--that which involves access to electronic documents.

The significant difference with an electronic document is that if you have the call number it should in principle be possible, from any workstation, to gain access to it remotely, view it, download it, and, in brief, "use" it. Think how much simpler and quicker it would be if librarians and, even better, library users could obtain their own interlibrary "loans" (now, technically, copies or excerpts) on a self-service basis, requiring the tolerance but not the time or energy of the staff of the library from which it is obtained. This change would be rather like the change from having closed library stacks, in which library employees had to fetch each book for users, to open stacks in which library users could obtain and examine books by themselves. Similarly,

in the Electronic Library, library staff would be mainly concerned with creating and sustaining the system so that users could serve themselves.

Self-service, however, is a mixed blessing. It also assumes standardized, intelligible procedures, presupposes some expertise on the users' part, and may make it less easy for the service providers to know what is going well and what is not going well. Yet it may be the only affordable way to support large-scale library use.

The Architecture of the Electronic Library

What would it take to build an Electronic Library and, indeed, to make Electronic Library service common practice? To develop a library with electronic documents we do not appear to need to draw on anything in librarianship that is different from existing principles. Rather, as with paper and with microform, we have to interpret the same familiar principles in ways appropriate to the technical characteristics of the medium. With electronic documents, even more than with microforms, adherence to standards is important for progress. Electronic documents should themselves be in standard formats. Standards are needed for cataloging electronic documents. Communications formats are needed for conveying electronic documents. Substantial and compatible telecommunications protocols are of great importance. Much work needs to be done in developing and adopting compatible national and international standards for characters, images, documents, telecommunications, and so on.

The key to consideration of the Electronic Library is recognition that providing access to electronic documents will be needed. How the balance between paper and electronic documents will evolve is an interesting but less urgent issue.

Organization and Implementation

Good planning is a process that leads to consistent anticipatory decision-making. Planning that does not influence decisions is futile. Decision making should be anticipatory in that plans should be ready for events as (or before) events occur. Decisions should be consistent with the mission of the organization and with each other. Bad planning or, more commonly, an absence of planning is reflected in decisions that are taken too late and that are inconsistent: Any good resulting from one decision is liable to be undone by the next.

With technological change there is often unfortunate confusion between "research and development" and "innovation." Research and development have to do with the *identification* of feasible new options and is a matter of inquiry, investigation, and testing. Innovation is a matter of selecting or rejecting available options and is a management activity. These are quite different activities. Failure to recognize the difference between them leads to the development of options that are not properly considered or to the adoption of impractical or unsuitable innovations.

The management of research and development, the implementation of change, and effective planning are important and widely underestimated skills. There is a large and useful literature on planning upon which one can draw.

The Challenge

The mission of library service is to support the purposes of the group to be served. The role of library service is to provide access to documents. We could, if we wished, choose to define documents generously to include a range of informative objects that can be stored and retrieved, not only writings and not only published writings.

Library service may be concerned with knowledge, but it is so in a fashion that is doubly indirect. Firstly, library services are concerned with texts and images that are representations of knowledge. Secondly, library services are, in practice, often concerned less with the texts and images themselves than with physical objects that are text-bearing and image-bearing, such as books, journals, manuscripts, and photographs. Libraries deal with text-bearing and image-bearing objects in vast quantities. Much of libraries' operating budgets and space is devoted not to the *use* of these materials, but to *assembling, organizing, and describing* these materials so that it would become possible to use them. Hence, any significant change in the technology of text-bearing objects or of handling them could have very profound consequences, not on the purpose and mission of library services, but on the means for achieving them.

Information technology may only be a means and not an end, but that does not make it unimportant. In the provision of library service a very large proportion of present budgets is devoted to arranging the means to enable service to be provided. The substitution of computing power, electronic data storage, and use of telecommunications holds considerable potential, not least because of the expectation that they will continue to become more attractive on cost grounds. The important questions become how and when the substitution of procedures based on new information technology should be adopted. The constraints include our limited ability to determine how to achieve that substitution, when that substitution will become cost-effective, and, at least as important, how to discriminate between substitutions that support improved library service and substitutions that subvert the mission and role of library service.

Beyond Substitution

The initial task can reasonably be to find out how and when to substitute techniques using new information technology in the place of more traditional methods. This, in itself, misjudges the real options. Each technology offers a different set of constraints. Each technology is suited for doing *different* things. The automating of manual procedures may well be worthwhile, but, in the longer term, misses the point of technological change. The initial question may be: How could library services be advantageously automated? This is a matter of doing the *same* things better. The longer term, more interesting question is: How could library service be re-designed with a change in technology? This is a matter of *how* to do better, *different* things.

Critical for addressing the second question--which better, different things should be done--is an understanding of past constraints upon library services that are attributable to the constraints of the technology of paper, card, and microform. However, constraints that are familiar tend to be transparent and not easy to recognize.

In “The Paper Library,” we noted the constraints of paper. Paper is a strictly localized medium; a paper document is generally suited for use by only one person at a time; paper copies of paper documents have the same constraints as do the original; paper records are rather inflexible and can become expensively bulky. Computer-based processing and electronic document storage have been found to have their own distinctive characteristics. The constraints include a greater need for standardization, increased technical complexity, and greater dependence on equipment that is much more fragile and much more prone to obsolescence than that of a Paper Library.

Advantages of the new technology are that repetitive, mechanical tasks can be delegated to the machinery; the rate of increase in labor costs can thereby be moderated; electronic records can be modified, rearranged, and combined with each other; and, with telecommunications, distance becomes substantially irrelevant. These factors transform those aspects of library service

that derive from the constraints of paper and cardboard. The location of the user, the catalog record, the bibliography, and the document cease to be dominating considerations. The user, the catalog, the bibliography, and the document can now be connected in ways that, hitherto, could only be dreamed about. As these changed constraints come to be appreciated it becomes clear that these new circumstances offer the possibility—indeed the inevitability—of new designs for library service.

Several major changes are indicated:

1. Since library materials in electronic form lend themselves to remote access and shared use, the assembling of local collections becomes less important. Coordinated collection development and cooperative, shared access to collections become more important.
2. With materials on paper, having copies stored locally is a necessary (though not a sufficient) condition for convenient access. With electronic materials, local storage may be desirable but is no longer necessary.
3. In the meanwhile, those to be served are changing their information-handling habits. Paper and pen are being supplemented by desk-top workstations, capable of using a multiplicity of remote sources. This leads to an entirely different perspective: from a library-centered world view to one that is user-centered.
4. These technological changes also invite reconsideration of the professional orthodoxy of consolidating academic library services. The view that a multiplicity of branch and departmental libraries is inefficient might well change.
5. The functions of the library, the computer center, and the telecommunications office are converging, overlapping, or, at least, more closely related. New patterns are evolving in the relationships between libraries, publishers, and others in the information industry. The roles of archives, libraries, museums, and other information stores seem likely to become less clearly differentiated.
6. There is much greater opportunity to bring service to wherever potential users of library service happen to be.

Catalogs, collections, buildings, and library staff are the familiar means for providing library services. Computers, networks, and electronic documents provide additional means with interesting possibilities.

Hitherto library services have been dominated by local catalogs, local collections, and great inequalities in the geographical distribution of services. The constraints on library service are changing right now. None of this is an argument for abandoning paper and local collections. All of this requires us to think again about the mission of the library, the role of library, and the means of providing service. For the first time in one hundred years we face the grand and difficult challenge of redesigning library services.