Contracting for computer services in libraries

By Stuart Kohler

Issues you need to consider when outsourcing

As the use of computerized systems becomes more and more common in libraries of all sizes, so has the use of outside vendors, contractors, and consultants to install, implement, and maintain these systems. Acquiring systems, services, and applications may often be undertaken more cost-effectively by arranging for them with nonlibrary personnel, but once the decision to outsource is made, there are many issues that must be carefully considered. The recommendations presented here are general in nature and should not be taken to substitute for competent legal advice when drafting contractual documents.

Introduction

Libraries are no longer strictly the province of rows of card catalog drawers and shelves of books and periodicals. The long-standing icon of libraries, the catalog card with spindle hole, has given way to its electronic descendants, although not always without protest.1 Advances in information technology have definitively made way into the world of business and publishing, but the impact on libraries has also been significant. Librarians see their role expanding from custodians of warehoused information to gatekeepers of electronic archives, often remote, of immense breadth and depth.2 As sophisticated applications of information technology continue to evolve for libraries, opting to obtain some of these resources from outside the library become appropriate alternatives.

Making the decision to outsource depends on many factors and is beyond the scope of this paper. The reader interested in this aspect of the outsourcing process is referred to several helpful publications in the literature.3–5 The focus in the present set of observations begins once the decision to outsource has been carefully weighed and identified as the course of action.

Types of computer services

The range of possible types of services runs from a contract for a specific piece of custom software to a comprehensive contract for the provision of complete librarywide computer services. While there may be some overlap in the following list, five general categories of outside assistance in automated systems may be identified:

1. Small, custom software applications (e.g., library kiosks, pieces of computer-assisted instruction, specific database applications for newsletter or mailing list purposes, etc.)
2. Services, such as short-term onsite training sessions for library staff, long-term agreements for user or network support, subscriptions to remote databases of periodicals or other content-specific resources, etc. Network services might also include the installation and maintenance of a local area network, including the required hardware and software, servers and workstations.
3. Purchase or lease of specific automated library modules, such as an online public-access catalog or an automated circulation system, usually to run on a personal computer.
4. Purchase or lease of an integrated library system which includes an OPAC and

Stuart Kohler is information technology librarian at Norwich University, Northfield, Vermont; e-mail: stuartk@norwich.edu
systems for circulations, serials, acquisitions, and other areas of library administration, usually to run on a mini or mainframe computer.

5. **Comprehensive contracts for total library-wide automation**, training, maintenance, upgrade, and support for all related computer systems.

### Issues to consider

Potential problem areas may be divided into nine general categories:

1. **Clear statement of need/clarity of contract.** Not only should the statement of need explain specifically what is required, there should also be a brief summary of how the new system will improve efficiency, service, reduce costs, or other justification for undertaking the project. Build this specificity into the contract with the provider, as lack of clarity is a frequent cause of outsourcing problems.

2. **Evaluate contractors/vendors.** If the project is large enough, it may be appropriate to call for bids. The library is paying for expertise but also experience. Therefore the library should ask questions such as: Has the contractor done similar work elsewhere? Are references available? If it is a new area for the contractor, will the fees reflect his or her learning curve?

3. **Compatibility with existing systems, hardware, and/or software.** Diversifying computing platforms (i.e., Windows or Macintosh or both?) may enfranchise new sectors of the library’s community, but it also adds increased levels of complexity for maintenance, troubleshooting, and perhaps future expansion of related systems.

4. **In-house maintenance requirements/training of staff to operate new system.** Who trains staff and will the original trainees be able to train new staff hired later? Will the system be a self-contained, dedicated-use system (stand-alone), which would be easier for staff to learn and use or will it be accomplished by adding on to an existing system? The latter may force staff to learn more about the general operation of the existing system than a dedicated-use application would. Training should also be included on backing up current data and archiving procedures for old data.

5. **Scope of contract.** Once the contract is turned over to library, is there any long-term responsibility by contractor if bugs are discovered or changes are desired? Who owns custom-written software? (See notes 7 and 8 for more information on copyright issues such as title and work for hire.) If the library does not obtain title to software, the consultant may realize additional profit by selling the same work again to another library, albeit with some modification. If so, the fee schedule should reflect the true value of what is being created and its true ownership. When contracting for full-text periodical databases, are there copyright restrictions?

6. **Billing and completion arrangements.** Will there be a single, flat fee for the completed/delivered product or an hourly fee for its creation? For hardware or systems maintenance contracts, will service calls be billed on an hourly basis or does the contract fee cover all necessary service requests? What is the timeframe for delivery of completed work or for completion of repairs? The latter may be articulated in terms of performance measurements, such as performance goals and performance minimums.

7. **Remedies for unacceptable work.** Unfortunately, an unscrupulous entrepreneur may attempt to maximize profits by declining to deliver exactly what was promised in absence of specific remedies specified in writing.

8. **Likelihood of long-term accessibility** to information such as full-text periodical databases (especially important if considering cancellation of periodical subscriptions) or long-term usefulness of the software application under consideration.

9. **Acceptance testing.** Absolutely crucial and should include a reasonable testing period—not simply a demo by the consultant at turnover.

### Example

As an example of the process at a conceptual level, we will consider the development of a custom piece of software to maintain the membership records of a Friends of the Library organization, following the nine issues outlined above. Although the process becomes more complex for larger projects, the procedure will remain the same in principle.

The first step is to clearly state the goals, functionality, and features of the Friends software. This particular project would have as its goal the creation of software to collect, maintain, and extract information about the Friends membership including the elements of name, address, membership type, renewal date, and a miscellaneous note section. In terms of functionality and features, the system should be easy
to use, must be able to produce (print on ei­
ther paper or label stock) mailing lists (by zip
code as well as last name) and renewal lists. In
addition, the system must include a mail merge
function able to produce customized correspon­
dence to the membership.

Once this information is presented to the
consultant, the next step is to establish an ap­
proximate time for completion of the project
and identify if new or existing hardware (com­
puter or printer) or new software (upgrade to
current database application) will be required.
If the latter is true, who is responsible for mak­
ing the required purchases? Establish also who
enters sample data for testing purposes and the
complete data for the full system. If data are to
be supplied by the library, what is the required
data format? Clarify title to the resulting soft­
ware and also clarify how much training of staff
will be included by the consultant.

Finally, an overall fee for the project or an
hourly rate should be agreed upon. If an hourly
rate is selected, it may be useful to establish a
maximum total charge to prevent the project
from taking on a life of its own. As a precau­
tion, discussion at this point should include rem­
edies for undelivered or unacceptable work.

The next step is when the consultant re­
turns with a demonstration version of the soft­
ware, with evaluation done using sample data.
At this point, change orders may be necessary.
Requesting changes in the way the software
operates or the pieces of information included
is often a fact of life in software development.
It is not necessarily evidence of poor planning
or mistakes. Systems seem to have a natural
"gestation" period, but it is essential to mini­
mize the number of change orders and the
magnitude of the changes requested. Each
change from the original contract usually con­
stitutes additional charges.

Acceptance testing with live data is usually
the conclusion of the project, save for paying
the consultant. At this point, the software would
be "turned over" to the library and future re­
sponsibility for the consultant would likely oc­
cur only if bugs (such as dues payment miscal­
culations) show up after the acceptance testing
is completed and the project accepted.

Conclusion
Effective management for incorporating infor­
mation technology into the library setting maxi­
mizes both financial and personnel resources.
The judicious use of automation expertise de­
rived from consultants, contractors, or other
vendors is a means to extend in-house tech­
ology capabilities and leverage improved ser­
vices to the library's constituency.

Notes
70 (April 4, 1994): 64.
2. Paul Evan Peters, "Information Age Avata­
tors," Library Journal 120 (March 15, 1995):
32–34.
3. "Contract Management or Self-Operation:
A Decision-Making Guide for Higher Educa­
4. Robert J. Robinson, "Outsourcing's Poten­
tial in Higher Education," CAUSE/EFFECT 14
5. Contracting for Computing, Vol. 2. A
Checklist of Terms and Clauses for Use in Con­
tracting with Vendors for Software Packages
and Custom Software (Princeton, N.J.: EDUCOM,
1975).
6. Ed Foster, "Outsource Sense," Infoworld
7. R. S. Talab, Copyright and Instructional
Technologies. A Guide to Fair Use and Permis­
sions Procedures, 2nd ed. (Washington, D.C.: Asso­
ciation for Educational Communications
and Technology, 1977), 16. (A specific descrip­
tion of the term work for hire as related to the
Copyright Act.)
(Includes examples of contract clauses relating to
the issue of title.) ■
Complete Coverage in a Single Source
New Reference Works from Academic Press

Encyclopedia of Human Biology
SECOND EDITION
Editor-in-Chief Renato Dulbecco
http://www.apnet.com/human/
Praise for the First Edition
"This outstanding tool is highly
recommended for all libraries..."
—LIBRARY JOURNAL

The Encyclopedia of Human Biology, Second Edition is the only reference work that provides complete coverage of the vast subject area of human biology.

KEY FEATURES
• Second Edition of a highly regarded and widely used work originally published in 1991
• More than 100 completely new topics added for this edition, e.g., AIDS; Infectious Complications; Cancer Prevention; Cell Cycle; Gene Targeting Techniques; Lyme Disease; In Vitro Fertilization; Prions
• Nine-volume set, including a separate index volume published simultaneously
• Articles written by more than 700 eminent contributors from around the world
• 5000 glossary entries explain key terms
• Further reading lists at the end of each entry, more than 4000 references in all
• More than 3000 figures and tables complement the text, including 75 color plates

Nine-Volume Set
Prepublication Price: $1799.00*
(tentative)
September 1997, c. 5200 pp., $2100.00
(tentative)/ISBN: 0-12-226970-5
*Prepublication price expires on December 31, 1997.

Comprehensive Biological Catalysis
A Mechanistic Reference
Edited by Michael Sinnott
http://www.apnet.com/catalyst/

The first volume concentrates on reactions of electrophilic carbonyl, phosphorous and sulfur. Volume Two provides reactions of nucleophilic/aryl carbon. Volume Three highlights radical reactions and oxidation/reduction. The final volume, or the "chemical lexicon," consists of clear explanations of alphabetically arranged specialized terms and concepts.

Four-Volume Set
Prepublication Price: $750.00*
(tentative)
September 1997, c. 1200 pp., $899.00
(tentative)/ISBN: 0-12-646860-5
*Prepublication price expires on December 31, 1997.

Encyclopedia of Applied Ethics
Editor-in-Chief Ruth Chadwick
Advisory Council Dan Callahan and Peter Singer
http://www.apnet.com/ethics/

From a Review of Professor David Wasserstein's Article "Discrimination, Concept of:"
"An excellent, well-written and mind-opening article. I thought this a fine piece of work, lucid, informative, sharp."
—Dr. Anthony Skillen, Darwin College University at Canterbury, Kent, U.K.

The Encyclopedia of Applied Ethics compiles the most up-to-date and comprehensive writings available. The four-volume set will serve as a foundation for the increased growth of this discipline and its use in professional, political, and personal situations. Based on twelve major categories, each category is divided into discrete areas that are covered by 5,000-6,000 word articles. Each of the 281 articles begins with a definition of the subject and includes a table of contents, glossary of key terms, and bibliography.

Four-Volume Set
Prepublication Price: $499.00*
(tentative)
October 1997, c. 3000 pp., $625.00
(tentative)/ISBN: 0-12-227065-7
*Prepublication price expires on December 31, 1997.

Stop by the Academic Press booth at SLA & ALA!

ACADEMIC PRESS
Order Fulfillment Dept. DM27098
6277 Sea Harbor Drive, Orlando, FL 32887
24-28 Oval Road, London NW1 7DX, U.K.

In the U.S. and Canada
CALL TOLL FREE: 1-800-321-5068
FAX: 1-800-874-6418
E-MAIL: ap@acad.com
In Europe, CALL: 9181-300-3322

Prices subject to change without notice. ©1997 by Academic Press. All Rights Reserved. LUKJIPDPAB—27087 4/97