

Chapter 4

Insourcing and Outsourcing of Library Technology

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ABSTRACT

This article traces the movement of library technology from in-house systems created and maintained by library personnel to outsourced products bought from and largely controlled by vendors. As well as documenting these changes observations will be made concerning strategic advantages and disadvantages of this move. Focus will be limited to six areas of library technology: OPAC, Discovery Layer, MARC Records, Bindery, Acquisitions and ERM (Electronic Resources Management). Some may argue that these are all components of a central ILS that are created and available. This is true in some cases but not others. For example, Innovative Interfaces has always had an Acquisitions module whereas other ILSs have not. Many libraries still use a spreadsheet or other method to keep track of serials where others have migrated to an ERM. Individual use cases will be covered to demonstrate the benefits and shortcomings of each system.

INTRODUCTION

As long as there have been libraries in the modern sense of the word there have been specialized vendors to assist libraries in tasks that were not possible to complete in house. Bindery operations to preserve journals, printers to create a wide variety of forms, even rubber stamp manufacturers. This article focuses on modern library needs and how there is a choice of handling a task with a home built solution or using a product from a vendor. In some cases the choice is clear cut. If the library is small with limited staff the answer is almost always to buy expertise in the form of a ready made product that more or less does what is needed. Many times the choice is already made due to long standing contracts specified by funding agencies beyond the local control of the library. At other times the library may belong to a consortia that uses a particular product as part of its workflow as when a library must be able to place a hold on a book at another branch. Different departments within the library will have different needs and this is just a broad overview of some of the competing tensions that will drive such decisions.

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The OPAC

When attempting to understand the way libraries acquire technology it is important to keep in mind that there was a time when nearly all technology was produced in house. The helpful Wikipedia article on OPACs (“Online Public Access Catalog.” 2016) gives a start time to online catalogs around 1975 with in-house systems developed at the Ohio State University. These were all in-house, locally developed systems as there were no ILS vendors until the 1980s. The records that went into those systems were developed largely by the Library of Congress in the 1960s (“MARC”, 2016.). The earliest mentions of the word OPAC are from around 1976 with OCLC (a library consortium later to become a library vendor) developing the first shared online catalog to be widely used. Throughout the 20th century, the technology of libraries was very DIY. Around 1980 all of this changed with the advent of cheap computing and vendors who offered products to libraries who had previously only had card catalogs. Since then, more and more library technology has been purchased as a product from a vendor rather than being developed as a solution by staff.

Software as a Service (SAAS) products (mention one or two examples) have by now supplanted traditional server/client architecture. By allowing greater efficiencies through multi-tenant (define) offerings and greater reliability through multiple location failover, these systems are much more robust while at the same time offering much less drain on the network. Since all transactions are browser based, there is no need for a local client installation, thereby ensuring increased security and a constantly up-to-date environment. The first mention of SAAS in the literature for OPACs is in 2007.

Typical transition from an in-house to an outsourced system goes like this: [number each phase] first there are cards, typed up locally. Eventually this gets outsourced and cards are bought. This information gets put into a database and available electronically. The online catalog eventually replaces the print card catalog. Librarians who had adopted the new platform become expert at searching the in-house system. Vendor supported system take its place and the in-house one is eventually retired. The vendor system is not as customizable as the old system but all learn to make due. These precipitous declines in technology investment, customizability and local control are the hallmarks of outsourcing and will be seen again and again. As Marshall Breeding reported in 2007:

New Product Offerings from SirsiDynix

SirsiDynix Symphony incorporates open, industry-standard technologies, offering the library community features and capabilities including: a service-oriented architecture (SOA), software-as-a-service (SaaS) options, power library “user experience” portal and search solutions, comprehensive integrated library management and productivity solutions, Java-based staff clients for all modules, fully documented application programming interfaces (APIs), Unicode support, advanced business intelligence and reporting tools, support for SIP2 and NCIP and support for the Oracle relational database management system (Breeding, 2007).

If this is the state of the art for OPACs it is helpful to contrast what is gained and lost. After the first breed of home grown OPACs, the next generation focused on institutions that would largely maintain their own servers and network architecture. MARC records were loaded locally and were stored on the server. These records were all very similar and had the same access points of Subject, Author, Title and Keyword. Because MARC was designed at a time when memory was very limited, these records were stored in a flat file rather than a relational database. In order to search these records, there were

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