Outsourcing and Offshoring in Special Collections: From Theory to Practice¹ (Special Collections Interest Group)

Panelist: Clifford B. Anderson, Princeton Theological Seminary

As the programs of special collections departments become more ambitious, the challenges of provisioning them become more complex. Whereas expectations of special collections librarians were once fairly uniform, position requirements are all over the map these days. Among other things, we may be expected to develop collections, process papers, arrange exhibitions, coordinate conferences, correspond with donor and grant agencies, publish scholarly articles, mark up finding aids, scan source materials, configure content management systems, and develop attractive digital interfaces. These increasing ambitions require us to think differently about how we approach not only our work but also the boundaries of our organizations. The question should not be what is most expedient but what is the most effective way to accomplish this range of tasks.

My purpose is to suggest a way to address a deceptively straightforward question: how should special collections librarians decide whether to hire staff, contract for services through the market, or engage in peer production when developing new initiatives? My goal in what follows is to make a *prima facie* case that transaction cost economics provides a useful framework for addressing this question. Along the way, I will illustrate this case with reference to practical examples of outsourcing and offshoring from my work in the office of special collections at the Princeton Theological Seminary Library.

The origins of transaction cost economics go back to the 1930s.² Ronald Coase (1910 -), a British economist, published a seminal paper in 1937 titled The Nature of the Firm.3 Coase asked why firms, that is, corporations and other forms of legal organization, exist in market economies. If markets are efficient, then it should be more profitable to purchase products and services through the market than to develop them within firms. But since firms do profitably exist, Coase reasoned that there must be an economic rationale for their existence. His proposal was that organizing production through the market was not frictionless, but involved certain costs. "The main reason why it is profitable to establish a firm," he suggested, "would seem to be that there is a cost of using the price mechanism." In other words, the additional expense of discovering the price of a good or service, contracting for it, and enforcing that contract may make it more profitable to produce that good or service within a firm than to purchase it on the market. The upshot of Coase's thought is that market prices can be deceiving; market prices do not include the full cost, which also includes the frictions related to information acquisition, contracting, and enforcing contracts. To see the justice of this point, just consider that in a world without transaction costs firms would not need lawyers — and yet, how many legal firms specialize precisely in commercial law?

Ronald Coase was awarded the Nobel Prize for Economics in 1991. In his history of the prize,⁵ Thomas Karier contends that Coase received it largely on the basis of his 1937 article and a 1960 article titled "The Problem of Social Cost." The common thread linking the articles is his appreciation for "transaction costs," which, like sand grains, can be sufficient to produce sizeable pearls.

How does Coase's insight apply to libraries? The short answer is that Coase can help special collections librarians decide whether to develop products or services in-house or whether to buy goods from vendors or outsource services to service providers. Will it be expedient to hire employees to develop a new service, for example, or does it make sense to outsource? Librarians face this question all the time, but frequently fail to take into account transaction costs. Coase teaches us that such decisions cannot be made on the basis of price alone (e.g., the costs of hiring and managing a new employee, including salary plus benefits but also training costs, management costs, etc. versus contracting with a service provider) since the market price hides information about the actual cost, including the informational costs (e.g., engaging in a "Request for Proposals" process), contracting costs (including a manager's time and legal resources), as well as the ongoing costs of monitoring and reviewing the product (e.g., quality control and dispute resolution). But this short answer does not suffice, especially since the topic of hiring versus outsourcing is controversial; a longer answer is required to fend off misunderstanding.

In what follows, I make several assumptions that restrict the application of Coase's theory but are necessary to maintain the scope of this paper.

First, let me define what I understand by my terms. By "outsourcing," I mean relations mediated through the market rather than the organization. In practical terms, I mean contracting with a vendor to perform some service or provide some product. By "offshoring," I have in mind outsourcing with an international vendor — e.g., with a vendor whose operations are located in China. Offshoring is essentially equivalent to outsourcing with the distinction of wage arbitrage. That is, offshoring takes advantage of differences in prevailing wages for the same work, passing along the savings in the form of lower costs. A related term, "insourcing," is sometimes also used for contractual relationships where work is carried out onsite but under the management of the external party rather than the contracting organization.

Second, I am not talking about "outsourcing" libraries in general. The question whether libraries should exist at all in societies with free markets (or perhaps "capitalist" societies) is, of course, quite controversial. With respect to public libraries, for instance, one hears frequently the complaint that taxpayers as a whole should not be required to pay for the information and entertainment needs of the few library users in their communities. Would it not be more efficient to allow citizens to purchase books, DVDs, and other media according to their individual preferences by eliminating public libraries and lowering tax rates? This question goes beyond the scope of this paper, especially since it fails to deal with the political (i.e., questions of justice and fairness) issues and also the indirect economic benefits of public libraries. One must keep other rationales in mind when accounting for school media centers, academic libraries, and special libraries. For the purpose of this paper, then, I will assume the existence of academic libraries and restrict my line of investigation to decisions about how to allocate resources within their special collections departments.

Third, I assume that Coase's insights apply mutatis mutandis to non-profit organizations as well as to for-profit corporations. This is a significant assumption because some economists regard non-profits as prone to inefficiencies since they are not subject to market discipline in the same manner as for-profits.⁷ This point has been contested, however.⁸ For our purposes, we assume that non-profits share the same requirement as for-profits to allocate scarce

resources efficiently. Anyone who has acted as a budget officer in a library can attest to the scarcity of resources. And non-profit administrators also bear a fiduciary responsibility to allocate resources efficiently. So we assume that special collections librarians intend to make economically efficient decisions about hiring or outsourcing and do not introduce non-economic considerations into the decision-making process.

Lastly, I should make clear that our study is concerned with components of the library rather than the library as whole. In other words, the question is whether to hire or to outsource (or to engage in peer production — see below) certain services, not whether to privatize the library as a whole. Privatization has been called one of the "sacred cows" of librarianship. 10 "There's a consensus among librarians," writes Gordon Flagg in *American Libraries*, "that such practices are a potential threat to professionalism and an abdication of librarians' responsibilities." 11 The issue at stake in the privatization debate is whether for-profit or non-profit models provide more efficient libraries. In our discussion, however, the question is more fundamental — what products and services should constitute a library? Assuming that there are incorporated libraries, the discussion of for-profit versus non-profit reflects a disagreement about the proper legal framework for incorporation but does not touch on the subject at issue.

We may turn at this point to the work of Oliver Williamson (1932 -), who developed Ronald Coase's theory that firms arise in response to transaction costs firms into a school of thought he titled "New Institutional Economics." Williamson enriched Coase's understanding of transaction costs by "dimensionalizing" his concept of transactions. That is, Williamson identified at least three dimensions of a transaction that can lead to different decisions about organizing through the market or developing internally: uncertainty, frequency, and asset specificity. Obviously, the greater the level of uncertainty, the more likely it is that firms will organize transactions internally since the cost of revising agreements due to shifting and unpredictable circumstances will be high. By contrast, recurring purchases of materials are best left to the market. The third dimension, asset specificity, was among Williamson's creative contributions. Roughly, he suggested that more "idiosyncratic" transactions, namely transactions in which the asset is produced to meet the specific needs of the purchaser and may not be resalable elsewhere, will generally lead, if not to integration, then to strategic agreements, such as partnerships. Williamson was awarded the Nobel Prize in Economics in 2009.

Williamson advances our understanding of our initial query about when to hire, purchase, or engage in peer production by focusing on drawing what he terms, following William Ouchi, "efficient boundaries." What is the efficient boundary of the firm? Let us picture the firm and the market as two intersecting sets as, for example, in a Venn diagram. The symmetric difference of the two sets represents, on the one hand, what Williamson terms the "core" activities of the firm, and, on the other, obvious market transactions. The intersection of the two sets leaves a wide area of overlap in which it is not immediately obvious whether the activity should be carried out by the firm or contracted out to the market. A manager thus needs to determine where to draw the line between the firm and the market in this intersection. The line the manager draws through the intersection represents an edge of the efficient boundary of the firm. "The efficient boundary," writes Williamson, "is the inclusive set of core plus additional stages for which own supply can be shown to be the efficient choice." "

Let's put the point more simply. Imagine sorting the transactions of a library into three columns: core, marginal, and market. We might, for instance, place administration, strategic planning, collection development, reference services, etc. into the core activities. By contrast, we might put supply purchases, telephony and telecommunication services, and the integrated library system into the market column. But this still leaves a number of transactions that could be handled by the library or vendors. For example, should the library hire maintenance staff or should it contract with a maintenance service? Should the library hire a web designer or contract out to a web design company? Should the library develop a preservation department or should it send out books for repair? How the library decides to draw the line between the firm and the market in the middle column will determine its boundary. Whether the line has been drawn efficiently will be determined not only by comparing the price of hiring versus buying but also the transaction costs that accompany both decisions. Of course, these decisions may also reflect strategic priorities. A library may decide, for example, to develop its own digital library platform rather than purchase a vendor's commodity platform because its librarians want to deploy highly customized web applications. A library may decide to outsource cataloging because it has mostly generic books whereas another library may hire many catalogers because it wants to develop a rare book catalog for scholars. These decisions shape not only the "efficient boundary" of the library but also its institutional character.

In the special collections of the Princeton Seminary Library, for example, we've concluded that it's more efficient for us to outsource the majority of our scanning to the Internet Archive rather than to purchase equipment and hire people to operate scanning machines. The marginal cost of scanning documents through the Internet Archive approximates the cost of photocopying the same document. Other libraries might make different decisions, of course. If a library aspired to specialize in the digital representation of ancient documents, for example, then it might make sense to develop scanning expertise in house.

Another practical example arises from our production of online finding aids. When I first arrived in my position, we had not converted any of our finding aids to Encoded Archival Description (EAD). In conversation with our manuscript librarian, I came to the conclusion that it would be more efficient to send out our finding aids (in Microsoft Word format) to an outsourcer with offshore operations in India. We devoted our staff time to improving the quality of the finding aids before sending them out for encoding and checking the quality of the encoding when the documents were returned to us. While not a frictionless process, outsourcing our encoding allowed us to concentrate our attention on the content of the finding aids rather than their markup. We also freed up our manuscript librarian from painstakingly retyping (or "cutting and pasting") our content from Word to XML. As a consequence, we put 227 encoded finding aids online within a matter of months rather than years.

Let's get back to our three columns: core, marginal, and market. My placement of the integrated library system (ILS) in the market (i.e., vendor) column may raise objections. Few initiatives have been so disruptive in the library world as the introduction during the past few years of open source ILS. Whereas purchasing an ILS from a vendor was once a foregone conclusion, libraries now have the option of installing an open source ILS. But what is an open source ILS (or any open source software)? An open source system like Evergreen or Koha does not fit cleanly into either category. Individual libraries do not develop open source systems,

at least not exclusively — this marks the difference between open source and so-called "home grown" ILS, which suffered bad reputations (i.e., as inefficient choices). But, while vendors exist to service them, vendors do not own open source ILS. In short, open source software seems to inhabit a different space than the firm and the market.

In a seminal paper from 2002 titled "Coases's Penguin, or Linux and 'The Nature of the Firm," Yochai Benkler contends that peer-to-peer production in fact represents a distinct context of production from the firm and the market. "The emergence of free software as a substantial force in the software-development world poses a puzzle for this organization theory," he argues. "Free software projects do not rely either on markets or on managerial hierarchies to organize production." Benkler, Berkman Professor of Entrepreneurial Legal Studies at Harvard Law School, suggests that we need to think about a third form of production, namely peer production, when drawing the efficient boundary of the firm. In other words, managers may actually have three options when deciding how to draw the boundary of the firm — hiring, purchasing, or engaging with the open source community.

The notion of using open source software in libraries is much less controversial now than a decade ago. After all, many libraries routinely install Firefox browsers on library computers, and a substantial number operate websites with open source programming languages like PHP that connect to open source databases such as MySQL on top of the open source Apache web server and Linux operating system.²² The use of open source software may no longer be controversial, but special collections librarians have not yet grasped the significance of the emergence of this third mode of production for hiring or purchasing decisions. While a few libraries sponsor open source projects (the Massachusetts Institute of Technology, the University of Virginia, and the University of California at Berkeley spring immediately to mind), most libraries do not provide encouragement for staff members to engage in peer-to-peer projects. Librarians, if they engage in peer-to-peer production, generally do so at their own initiative and on their own time. In many cases, there may be wasted productivity, that is, there may be many librarians who could make significant contributions to open source projects which would pay dividends not only to their own libraries but also to the practice of librarianship as a whole who do not make such contributions because they are not encouraged to or, in some cases, are actively discouraged from doing so.²³

The failure of many special collections librarians to consider peer production as a viable alternative to in-house development or market transactions may actually be producing inefficient boundaries. For, as Benkler argues, peer production "has certain systematic advantages over the other two [forms of production] in identifying and allocating human capital/creativity."²⁴ Benkler provides a rich set of arguments in defense of this thesis, which elude easy summarization. However, a basic contention is that open source projects do a better job of allocating the most skilled and creative agents to the appropriate tasks.²⁵ For example, a library developing a digital library project may employ a highly competent metadata librarian who is only moderately competent at user interface development. The library could contract out to the market for a user interface specialist, but the information costs of identifying a skilled specialist acquainted with the library market would likely be high. So the most expedient choice would be to ask the metadata librarian to develop the user interface, even if that means

having a second-rate interface. By contrast, if the library releases its new project under an open source license, a user interface specialist at another library might self-identify as someone who could develop a first-rate interface, thus significantly enhancing its appearance and usability without charging up the information costs of the project.

When working with partners external to their organizations, librarians need to change their habits somewhat. Here are a few tips toward making the experience successful from our experience at the Princeton Seminary Library. First, make your expectations as explicit as possible. The more clearly you communicate at the onset of a project the more likely you will be satisfied with the outcome. In some cases, this communication will take the form of a Service Level Agreement (SLA), which formally specifies responsibilities on both sides. In other cases, communication may take place through the exchange of model documents. For example, we've carried out projects on the basis of an informal set of guidelines and a model document (with embedded comments) indicating how to instantiate those guidelines. Second, monitor quality quickly and promptly. When an outsourcer delivers a product, you should have a method in place to sample its quality. If a batch of materials is small, this may mean looking over all the documents, paying particular attention to known sources of error. If a batch is big, e.g., thousands of bibliographic records, you will either have to automate the quality control process or use a sampling method. Whatever method you adopt, do not let the quality control process slide. Generally, outsourcers specify a certain window of time for you to report any issues with their deliverables. While a generous outsourcing company may correct errors pointed out after the formal window has closed, good practice dictates monitoring quality as soon as possible after delivery. Finally, a third tip is to communicate with your outsourcing company as frequently as feasible. In some cases, you may wish to arrange weekly conference calls to monitor the progress of your project. In others, irregular phone calls to your sales representative may be sufficient. Developing a rapport with your outsourcers before you come across problems in deliverables will make it much easier to agree on course corrections. Additionally, good outsourcers frequently act like consultants, giving you indications of what other libraries and vendors are doing and suggesting improvements to your processes.

The purpose of this paper was modest. My goal was to suggest that special collections librarians must think more explicitly about how to allocate their resources when deciding how to develop new products and services. By considering only staff resources or looking only at market prices, librarians fail to make economically efficient decisions. The transaction cost of organizing projects using the market (or other mechanisms) must also be considered. Furthermore, the emergence of peer production introduces a new factor into this calculus, which librarians have only recently and inadequately taken into account when making decisions about deploying resources. We can hope that by taking the work of Coase, Williamson, and Benkler into account, special collections librarians will draw more efficient boundaries for their departments and thus increase their productivity and range of services for their patrons.

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Endnotes

- ¹ An earlier version of this paper was developed in Dr. Irene Lopatovska's course, LIS 651: "Introduction to Information Professions," at the School of Library and Information Science at the Pratt Institute (New York, New York).
- Oliver E. Williamson, "The Economics of Organization: The Transaction Cost Approach," *The American Journal of Sociology* 87, no. 3 (1981): 550.
- ³ R. H. Coase, "The Nature of the Firm," *Economica* 4, no. 16, New Series (1937): 386–405.
- ⁴ Ibid., 390.
- ⁵ Thomas Karier, *Intellectual Capital: Forty Years of the Nobel Prize in Economics* (Cambridge: Cambridge University Press, 2010), 52.
- ⁶ R. H. Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (1960): 1–44.
- ⁷ See Thomas Sowell, *Basic Economics: A Common Sense Guide to the Economy* (Basic Books, 2010), 580 ff.
- ⁸ A. G. Holtmann, "A Theory of Non-Profit Firms," *Economica* 50, no. 200, New Series (1983): 439–449.
- Oliver Williams remarks, "Transaction cost reasoning probably has greater relevance for studying commercial than noncommercial enterprise, since natural selection forces operate with greater assurance in the former. Transaction cost economizing is nevertheless important to all forms of organization. Accordingly, the following proposition applies quite generally: governance structures that have better transaction cost economizing properties will eventually displace those that have worse, ceteris paribus. The cetera,

however, are not always *paria*, whence the governance implications of transaction cost analysis will be incompletely realized in noncommercial enterprises in which transaction cost economizing entails the sacrifice of other valued objectives..." Williamson, "The Economics of Organization," 573f.

- ¹⁰ Gordon Flagg, "Sacred Cows? Bring 'Em On!," American Libraries, December 2000, 30.
- 11 Ibid.
- ¹² Bernard Chavance, Institutional Economics (New York: Routledge, 2009), 45.
- ¹³ Williamson, "The Economics of Organization," 555.
- 14 Ibid.
- 15 Ibid., 559.
- ¹⁶ Oliver E. Williamson, "Transaction-Cost Economics: The Governance of Contractual Relations," *Journal of Law and Economics* 22, no. 2 (1979): 248.
- ¹⁷ See Kariet, Intellectual Capital: Forty Years of the Nobel Prize in Economics, 295.
- ¹⁸ Oliver E. Williamson, "The New Institutional Economics: Taking Stock, Looking Ahead," *Journal of Economic Literature* 38, no. 3 (2000): 557.
- ¹⁹ Williamson, "The Economics of Organization," 557.
- ²⁰ See Yochai Benkler, "Coase's Penguin, or, Linux and 'The Nature of the Firm'," *The Yale Law Journal* 112, no. 3 (2002): 372ff.
- ²¹ Ibid., 372.
- ²² This open source stack is customarily referred to as the LAMP stack i.e., Linux, Apache, MySQL, and PHP (or perl).
- ²³ Most librarians are not subject to policies that restrict their Internet usage, but many are restricted from installing software without the permission of their IT department. This barrier—or transaction cost—may be sufficient to discourage librarians from exploring open source software and finding possible avenues of collaboration.
- ²⁴ Benkler, "Coase's Penguin, or, Linux and 'The Nature of the Firm'," 381.
- ²⁵ See ibid., 416.



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