A NEW MODEL FOR PROCURING E-BOOKS

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This paper draws on a recent ground-breaking tender for e-books for higher education libraries in the United Kingdom. The strategy for the tender was informed by standard procurement practice and by the experience of acquiring other e-resources, particularly journals under the so-called big deal. Both are examined as background to the discussion of e-books in general, and the tender in particular. A full discussion of the background is given by Ball (2005).

The Procurement Cycle

The standard procurement cycle comprises the following five elements: identifying the need, preparing the specification, finding the supplier, awarding the contract, and measuring and monitoring performance. Following and understanding this cycle is fundamental to taking control of relationships with suppliers and of the market place. This structure is particularly important when procuring e-resources, where the business models are still fluid.

Identifying the need

The first step is to determine precisely what is required, and on what basis it should be procured—bought, leased, hired, shared. With hard-copy information, the emphasis is on buying and servicing a physical product. With electronic information, libraries are generally buying a service not a product: the emphasis is on access and the terms governing it.

It should be noted that in much procurement for libraries, the users are not consulted directly about their needs: the budget-holders, librarians, act as proxies. This may lead to a concentration on the technical issues that affect the library, such as processing of books or electronic data interchange (EDI), rather than on those that directly affect the user, such as the functionality of e-book offerings.

Preparing the specification

Once the need has been identified, it has to be expressed in a specification. This specification is fundamental to any procurement: it informs potential suppliers of what is required, how, when, and to what standards. If the specification is wrong, there is no chance of satisfying adequately the procurement needs. It should contain enough information and detail to ensure that both suppliers and purchasers are addressing the same requirement, and that suppliers can cost fully the products or services required. However, except for technical compatibility, it should not be so overly specific that it prevents

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negotiation or discourages suppliers from proposing innovative solutions. Over-specifying stifles creativity and the development of partnership, and hence decreases the potential benefits of any procurement.

Cost is obviously an important element of any procurement. The specification should as far as possible address the whole-life costs of the requirement, including, for instance, reliability and maintenance costs.

The specification also provides the yardstick for evaluating any tenders received, so should be capable of being turned into measurable criteria. Obviously, this is easier for some procurements than for others. The discounts offered by booksellers on a basket of books can be compared easily one with another. However, concepts such as quality of service or the user-friendliness of a system are far more difficult to quantify.

Finding the supplier

The tender

Issuing the tender document is the first step in a process leading to a contract between purchaser and suppliers. The involvement of procurement professionals from the start of the process is essential.

One important element required from potential suppliers is the price schedule. Several pricing models might be applied to library procurements. The most applicable are:

- **Fixed Price**. This is the most obvious model and the easiest to evaluate. It is used for one-off purchases or commissions, such as consultancy.
- **Discount from List Price**. Hard-copy books and serials tend to be bought under this model, with intermediaries offering a discount from the cover price. While ostensibly simple, some care has to be taken when evaluating suppliers under this model to check that they are quoting the same price. Different approaches to exchange rates can lead to distortions.
- **Cost-Plus**. In the past, booksellers have tended to offer a single discount across the board. There is some risk for them in this model, since the discounts they receive from publishers or wholesalers vary: if customers order unexpectedly large numbers of titles offering low or no discount to the bookseller, they will lose money. Cost-plus eliminates this risk: the supplier charges the price paid for the items and adds a fixed charge for the work carried out. This model has attractions for both sides: the supplier has a guaranteed return; and the purchaser knows that the best price is achieved. It can be difficult to audit and manage, however, and has generally not been offered by library suppliers.

Evaluating the suppliers

Generally, there are four elements to be evaluated: the financial health of the supplier, the price quoted, quality, and the ability of the supplies to meet the specification. Typically, a number of resources are used in the evaluation: published information and analyses (particularly financial), the returned tender documents, visits to suppliers' premises, customer references, and meetings to clarify the information provided.

Firstly, especially for contracts that are large, last for a number of years, or are critical for carrying on the library's business (such as the library management system), one will want to evaluate the financial viability of the potential suppliers.

Secondly, one will of course want to evaluate the price quoted, bearing in mind the different cost models and the need to evaluate the cost over the whole life of the contract.

Thirdly, one will evaluate quality. This can be the most difficult area: quality is not easy to quantify, involving judgement rather than facts such as cost; moreover, one may well be in the position of judging the likely performance of a supplier with which one has had no dealings. There are some relatively concrete indicators, particularly accreditation under quality schemes such as ISO 9000 or Investors in People and membership of professional organisations.

Finally, one may wish to evaluate the ability of the supplier to meet the specification. This applies particularly in procurements that are complex, for instance of a library management system, or seek to develop new services, such as shelf-ready books or supplier selection.

Apart from the pass/fail requirement of financial health, the aforementioned elements of cost, quality, and ability to meet the specification will differ in importance, depending on the situation of the purchaser and the type of procurement; one will therefore wish to recognise these differences by weighting the three elements accordingly.

Awarding the contract

The deal is concluded. The obligations of the supplier and buyer, based on the specification, are written into a contract. The contract will normally be supplemented by service-level agreements and performance measures.

Measuring and monitoring suppliers' performance

The procurement cycle is far from over after the contract has been awarded. Contract management, the process of ensuring that specification, service-level agreements, and performance measures are met over the period of the contract, is essential if suppliers are to be managed satisfactorily. This is generally achieved through quarterly contract review meetings with individual suppliers, who are expected to provide management information on the performance measures, drawn from the specification and detailed in the agreement.

Library Procurement Consortia in the United Kingdom

Perhaps the most useful tool for carrying out procurements is the library consortium. Such aggregation of purchasing power brings many advantages. New services, for instance the truly shelf-ready—catalogued, classified, and processed—book, have been negotiated through the strength of consortia. Quality of service is monitored closely and enhanced through continuing management of contracts based on tight specifications of service; pooled knowledge of suppliers' performance against these specifications lends force to this process. There are considerable savings in terms of the time needed by individual libraries to manage complex procurement procedures and the resulting contracts. Quite startling discounts on books have been obtained by UK consortia, for both public and academic libraries.

Consortia can be powerful entities, particularly when they take a holistic view uniting both print and electronic procurement: publishers produce and deal in both media; libraries integrate print and electronic forms in their service to users, and they should integrate the procurement of them too. Consortia are the only library organisations that have a chance of affecting the marketplace; individual libraries certainly do not.

While size can be important for the individual consortium, in aggregating demand and providing libraries with a strong voice when negotiating with suppliers, it also brings problems. A UK higher education consortium may have as many as 40 members, ranging from the small, very specialist, performing arts institution, through the medium-sized research-oriented university, to the teaching-oriented university with large numbers of undergraduates. Each of these types of institution will have a very different focus—extensive serials holdings or large quantities of textbooks, for instance—and require very different specialist resources.

Procuring Electronic Resources: The Big Deal

One major difference between hard-copy and electronic resources is that libraries much more are dealing directly with publishers rather than intermediaries. If one does not like the service or prices offered by an intermediary or aggregator, such as a bookseller, one can move business to a competitor. The purchasing consortia have been particularly successful in exploiting this competition. Booksellers, for instance, are keen to increase their share of the market at the expense of their competitors. They have therefore been willing to offer high discounts to consortia to achieve this; the discounts are a portion of the margin offered by the publisher to the bookseller.

Publishers on the other hand are monopolists: only they own the rights to their content and determine the terms. In the environment of consumer publications, there is some substitutability: instead of buying *The Times*, one can buy *The Independent*—they are different brands but with very similar news content. However, in the academic world there is virtually no substitutability of primary content: if researchers in an academic department's specialism publish in *Journal A* and *Journal B*, then *Journal X* and *Journal Y* are of no interest.

Because they are monopolists, it makes no economic sense for publishers of must-have content to discount to the library sector: they simply lose profitability and market share as savings are spent with competing publishers. So instead of discounts, they have offered electronic access to additional content in the form of the so-called big, or all-you-can-eat, deal. This is particularly prevalent in the field of e-journals, but may also be seen in the field of e-books.

Presumed benefits

Under the big deal, a journal publisher will grant access to all content for three or five years. There is an annual subscription, often based on and higher than the cost of the subscriber's previous print subscriptions, with some built-in increase for inflation and generally a no-cancellation clause. Libraries and their users will therefore have access to all of the publisher's content spanning however many years are available in the electronic archive.

There are potential benefits for both sides. Users have immediate access to material previously not subscribed to, at no incremental cost. Libraries can predict inflation over the term of the agreement, and save money from the inter-library loans budget. Publishers have a stable revenue stream for a number of years, with no cancellations.

But things are seldom as straightforward as they seem. There is some statistical evidence to show that users are downloading or hitting articles well outside the range of the previously subscribed core of hard-copy titles. However, one has to treat this evidence with some caution. It has not been collected for very long: it offers a short time-series at the start of a new service. There is no real comparison with previous data: librarians have generally not collected usage data for their hard-copy journals, partly because much consultation of them has been within the library. There is also the sweet-shop syndrome: children suddenly given the freedom of a sweet shop will gorge initially far beyond the value of their pocket money before their appetite stabilises. Also, we may be observing the substitution of full article hits or downloads for previous use of abstracting services.

The *prima facie* case that the big deal offers major benefits in terms of access to information is not necessarily proved; indeed there is some countervailing statistical evidence. Hamaker (2003), for instance, notes that 28% of *Science Direct* titles accounted for 75% of downloads at the University of North Carolina: 34% of titles had five downloads or less, and 40% of usage occurred in a single month for 57% of titles. Nicholas and Huntingdon's (2002, 149, 151) initial study of the Emerald big deal shows that 45% of subscribers viewed only one journal out of 118; another 40% viewed between two and five journals. Therefore, 85% of subscribers viewed less than 5% of the available titles.

Challenges

There is a hidden danger in the apparent benefit of the full output of some of the bigger publishers being made available through libraries. Guédon (2001, 24) posits an increase in citations of the journals of big deal publishers (understandable given their availability) in the research output of subscribing universities. There is therefore potentially a vicious circle, where the journals in big deals have higher and higher impact factors, to the detriment of journals outside the big deals. The effect on the market-place will be to undermine the financial viability of such journals and their (generally smaller) publishers.

The big deal is also challenging for librarians. Under it, libraries no longer take the decisions on developing collections that they have been used to: they will increasingly decide on content not at the journal level but at the publisher level. This is a qualitative change and one that does not necessarily work in the favour of libraries and their users. The user is focused on the article, to a lesser extent on the journal title, and most certainly not on the publisher. In the electronic environment, where the physical package—the title—is no longer necessary for purchase, the aim of libraries and users surely should be to increase the granularity of decision making, not decrease it.

There is also a danger that, at renewal time, publishers can offer libraries a stark choice: pay an additional 50% (or more) for the big deal or cancel. There seems currently to be a trend away from the big deal; but cancelling is a brave decision once academics and students have become used to the availability. The consequence may therefore be that journals outside the big deals will be cancelled. Publishers, particularly the smaller ones, will cease trading, and there will be further consolidation in the market.

E-Books

Although revolutionary in terms of delivery, the advent of e-journals has not changed the mode of use. Indexes and abstracts are searched; articles are selected; prints of them are procured. This is fundamentally no different from the hard-copy process of obtaining photocopies of articles, either from one's own library or on inter-library loan, after a literature search. The process has been telescoped by the technology, and the user is more in control; but the end-product is the same and this is essentially the way that scholars have worked for many years.

However, e-books are different, partly because of the extent of their individual content. Library users are either tied to a screen to read large volumes of text, or are obliged to print it themselves. This is not the way that users, or librarians, have worked with hard-copy books, and the end-product is quite different. The difference is magnified because the numbers making intensive use of e-books, particularly textbooks, comprising the whole undergraduate population, are much larger than the numbers making intensive use of e-journals. Cultural and technical difficulties (network and hardware availability, printing capacities and costs) are potentially much more critical.

E-books have taken a number of forms. Initially they were intended to be read on dedicated hardware devices, but take-up outside North America was very slow because of cost, lack of available hardware, and poor on-screen readability. The norm now, particularly in higher education, is for a software solution (such as Adobe) run on a PC, laptop, or Personal Digital Assistant. Given their portability and multiple functionality, the latter two devices seem destined to push out the dedicated reader.

Approaches to e-books in terms of functionality are dominated by the metaphor of the book and the database. Gibbons, Peters and Bryan (2003, 6–22) define seven types of functionality, including:

- physical functionality of the device (such as readability, ergonomics);
- functionality that helps read the content (such as searchability, navigational tools);
- enhancing functionality (such as inclusion of multimedia, links to data and bulletin boards);
- functionality that places the content in a context (such as links to other e-content, inter-textual searchability);
- functionality that helps the reader'possess' the text (such as making annotations, printing); and
- functionality that supports library activities (such as preserving the confidentiality of users, being 'scrubbable').

The Tender for E-books

In 2004 the member libraries of the Southern Universities Purchasing Consortium (SUPC) decided to go out to tender for e-books. It was recognised that this tender was potentially more difficult than hard-copy tenders, since the market was under-developed and the business models very fluid. The main aims of the tender were to provide members with agreements that:

- were innovative in terms of business models giving value for money;
- were flexible, offering those with differing requirements appropriate options;
- exploited the electronic medium in terms of granularity and multi-user access;
- focused on users' needs rather than libraries' requirements; and
- encouraged the addition of library-defined content.

The agreement resulting from this tender was also to be made available to all higher education institutions in the United Kingdom and to members of the UK higher education regional purchasing consortia.

Two distinct requirements were identified in the tender:

- **Requirement A**. A hosted e-book service from which institutions can purchase or subscribe to individual titles.
- **Requirement B**. A hosted e-book service of content that is specified by the institutions. It is anticipated that this service could be subject based and subdivided by subject area.

It was envisaged that the first subject to be tackled under Requirement B would be nursing, building on the work of the Nursing Core Content Initiative, based on the Libraries for Nursing/Royal College of Nursing (RCN) core collection for nurses.

From eight initial tenders, four suppliers were selected for detailed consideration; the selection being based on criteria such as the academic nature of the content, satisfactory authentication arrangements, demonstrable benefits for the consortium, and customer service. Three were general aggregators; the fourth offered a subject approach.

Business models

The three general aggregators offered pricing models based on the e-book list price. The e-book prices for 1,190 titles common to the three bidders covering four publishers were compared, and it was clear that for many titles there was no common e-book price. This comparative exercise demonstrated that the average e-book price for these four publishers ranged from $99.9 to $102.2, a spread of 2.3%.

The most depressing aspect of the tender was that two of the three general aggregators tended to mimic hard-copy business models very closely, allowing only single concurrent user access, or a fixed number of accesses each year. The electronic medium is ignored and many of its benefits lost under such restrictive models, which do not match the requirements of the modern university student for flexibility and immediacy of access. There is no reason why such models should be carried over from the printed to the electronic medium, and this lack of innovation influenced the outcome of the tender.

On the other hand, price comparisons with hard copy are by no means necessarily favourable. One e-book aggregator, for instance, charges the list price plus a fixed premium for outright ownership. In the United Kingdom, VAT at 17.5% is levied on e-books but not on printed books. Taking into account the average discounts available to SUPC members on both hard-copy and e-books, and assuming no difference between hard-copy and electronic list prices, the price of outright ownership of the e-book was a startling 82% more expensive than the hard-copy price. Moreover, the model allowed only one user at a time. Put another way, the book fund would buy 45% less books in electronic form than in hard copy.

In justification, one might argue that e-books bring savings in whole-life costs—processing, handling, and storage in particular. However, many libraries, such as that at Bournemouth University, are now self-service environments for the issue and discharge of books: 70% of Bournemouth's transactions are now through this medium. Thanks to an earlier SUPC contract, over 90% of hard-copy books are delivered completely shelf-ready. Shelving is carried out by student labour, paid for by fines income, which of course does not accrue on e-books. The university does not charge the library for space used. This economic argument does not justify buying 45% less books.

As Algenio and Thompson-Young (2005, 118–19) point out, one might also argue that outright purchase of e-book titles is preferable to subscription. This payment method is subject to inflation and obviously less controllable; it may also lead to the dangers recognised earlier in the discussion of the big deal. However, the price differential of the model just discussed outweighs this argument too.

Comparing the prices of the different aggregators proved a complex matter, given the different elements, such as platform fees and costs per full-time equivalent student, to be included. The comparison, however, was well worth while, since it demonstrated some very wide variations. With the outright purchase models, the cheapest, calculated on 1,500 titles, was 63% of the price of the dearest. With the subscription models, the cheapest on offer was only 20% of the most expensive.

These differentials are quite startling. However, it must be borne in mind that, given the variations in coverage of the different aggregators, one is not comparing the price of exactly the same content. Rather, one is comparing the purchasing models, based on the average list prices referred to earlier. In my view it is the models that are important: over time, as more publishers provide their titles in e-book form and as the size of the available general collections grows, the aggregators will be offering very similar content. This tender was an opportunity to send an unmistakeable message to the e-book marketplace—that vendors have to provide flexible and cost-effective business models reflecting the needs of users and exploiting the potential of the medium.

Bespoke subject collections

Despite offering business models derived from the hard-copy world, e-book aggregators do not fulfil one basic requirement of any hard-copy aggregator: namely, that they will supply any book from any publisher. To overcome the restricted nature of the content on offer, Requirement B of the tender addressed bespoke collections. Before the SUPC tender, work had been under way by a group of universities (Anglia Polytechnic, Bournemouth, Glasgow Caledonian, and West of England) and the RCN to define a core collection of nursing texts for use in higher education, based on the Libraries for Nursing/RCN core collection for nurses. The object was to negotiate with aggregators to make this collection available in electronic form, in order to overcome some of the problems experienced by nurses in higher education, who work and study in different locations under great time pressure.

This nursing collection was seen as the first in a series of bespoke subject collections to be defined by higher education. There would obviously be potential benefits both to students, who would have access to prescribed reading material in electronic form, and to the aggregators, who would be assured of take-up by the higher education community. One problem that arose was the well-known issue of core textbooks that sell in relatively high volumes (see for instance Armstrong, Edwards and Lonsdale 2002, 225). Publishers may be unwilling to make these available to libraries at economic prices because they will lose substantial revenue from sales to individual students.

Two of the three aggregators bidding for the contract expressed an interest in Requirement B, and demonstrated their willingness to negotiate with publishers on the behalf of libraries. The need for this initiative was demonstrated by comparing the list of 200 core titles against the offerings of these two aggregators: only 13% of these heavily used titles were currently available.

Results

Following a long and painstaking tender process, Ebrary and ProQuest were chosen under Requirement A, and Ebrary under Requirement B. These two suppliers were felt to offer most to SUPC members in terms of innovative business models giving value for money; flexibility, offering those with differing requirements appropriate options; and exploiting the electronic medium in terms of granularity and multi-user access.

Conclusion

The innovative tender just discussed offered the opportunity of sending a strong message to the emerging e-book marketplace. Lessons have been learned from the often painful experience of the e-journal pioneers. Higher education needs flexibility, both in terms of business models and access to resources. We are not willing to be forced into the straight-jacket of the hard-copy medium when the electronic form offers so much more. Nor are we prepared to accept the restrictive and expensive business models that some aggregators seem to be forcing on us.

In terms of content, we are also seeking to take the lead. As this article is being written we are already in discussion with Ebrary to procure bespoke titles for our nursing students and to develop other subject lists.

Of course, only time will tell how successful we have been in shaping the marketplace; but it is only through the application of sound procurement practice and the strength of the consortium that we stand a chance of success.

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