



Moving forward in e-business

Distribution of scientific content via intermediaries

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Preface

The focus of this paper is on intermediaries for scientific information defined by the global journal subscription agents, the largest ones being Swets Blackwell, Rowecom and Ebsco. It is clear that traditional relationships in the information chain are changing with the advancement of electronic information delivery. Libraries, publishers and subscription agents are being presented with challenges to their familiar roles and positions in scholarly communication. New pricing and ways of 'selling' information (e.g. to consortia, individual articles, linking of various content types) present new procedures and systems, which also highlight the strong need for agents as intermediaries in the electronic environment.

1 The Librarian's and end user's view

Traditionally in the print business, it was the function of the librarian to facilitate accessibility to information and guide their users through a portfolio of titles and articles. The electronic world has introduced a series of new processes and concerns involved in reaching content. The rapid growth in consortia has led to a new role for the library as a part of a cooperative, increasingly demanding end users and in many cases a shrinking acquisition budget in real terms. Administrative complexity remains high (or even higher!) in the electronic world with licensing and pricing issues far from standard. As a result subscription agents have to become 'infomediaries' in the electronic environment, undertaking a type of consultancy role for libraries.

Librarians need to be increasingly aware of many individual publishers' licence policies, pricing models, terms and conditions, for accessing electronic content from a particular publisher. This can be difficult in times of rapid transition with little standardisation amongst publishers. Librarians therefore seek guidance and clarity also from their subscription agents who have long established trading relationships with many thousands of publishers worldwide and the wealth of knowledge and expertise this has given agents. End users expect to be able to use the information as they wish to serve their research needs, and therefore, the responsibility of the librarian to educate them about what is and is not permitted is increasingly important. Librarians now need to know the law in order to understand licence agreements and the implications.

End users want ease and speed of access to information, with seamless linking from their preferred abstracting and indexing databases to full text. Librarians and information professionals want the choice to be able to purchase subject orientated packages of electronic journals or individual titles according to their collection needs, rather than whole collections from one publisher. They also want to negotiate, particularly as part of a consortium,



to achieve the best price and licence conditions. Customers want clarity, training, advice and guidance to find their way through a confusing complexity of pricing models for electronic journals, licence terminology, and delivery systems with different administration requirements.

2 The Publisher's view

Publishers may not wish to admit it, but their role in the information chain is also called into question. The emergence of new publishing 'competitors' such as pre-print servers like PubMed Central, initiatives like SPARC; and the increase in cooperative purchasing by library consortia (not to mention the huge investment in electronic publishing technology) is threatening their core business. They must therefore develop forms of added value and innovative pricing models to at very least maintain existing revenue streams.

Publishers need partners to provide them with information about current interests, reactions and movements in the market place - information which is increasingly valuable in an electronic environment characterised by experimentation, uncertainty and huge commercial investment. As a result, agents have naturally taken on a consultancy type role for publishers in being able to provide an overview of publishing trends in the electronic market place, particularly in the area of consortia purchasing and new e-journal pricing models. At the heart of the intermediary's role is the harmonisation of both supplier and customer interests, which in the electronic world has presented many new and exciting opportunities for agents to add value. Subscription agents like Swets Blackwell may form partnerships with companies specialising in helping publishers offer their journals via the web. This includes all the work involved in converting journals into a format suitable for delivery over the internet, making the data accessible on a number of servers around the world and providing a range of related services that benefit publishers. By these means many smaller publishers now have an affordable option that enables them to offer electronic versions of their titles, with the research community benefiting from the increased accessibility of information they need. The more content suppliers can provide access to electronically, the more valuable their services will be to our library customers.

Subscription agents have been faced with the argument from some publishers and information providers that their future is under threat as an unnecessary intermediary in an electronic information chain no longer requiring postage and packing, a form of 'disintermediation'. Although a highly simplified view, that has not proved to be right, it is nonetheless indicative of the agents' need to be continue to be creative in developing new services to meet the new and changing demands of both customers and publishers.

3 New Business models - new services from intermediaries

The impact of electronic journals on agents as intermediaries in the supply chain is clearly emerging as electronic publishing challenges the traditional selling of information. The focus is no longer just on a single journal as an annual subscription but on content segments e.g. a journal combined with other data such as tables of contents; a publisher's entire collection; 'bundles' of subject specific journals; and single articles sold on a pay per view

basis. There is the trend for print journals to be cancelled in favour of electronic-only where offered by a publisher, and/or cancellation of multiple copies. All these changes bring new ways of pricing information as one size no longer fits all and price flexibility offered by publishers, particularly for multi-site corporates and library consortia, is demanded by customers. Inevitably this brings with it the requirement for systems and processes to handle special pricing and access conditions presented by publishers for specific customers or consortia.

Despite all these concerns, the subscription model is still dominant and will continue to be for a long time - regardless, if it is the model print journal with 'electronic surcharge' or the electronic journal as main product with optional print as 'add on'. In the electronic world, agents as intermediaries will continue to add value in their traditional core areas namely content consolidation, accessibility (easy of access); and administrative consolidation (ease of doing business). It is unlikely, even in scholarly publishing that not one information provider is going to be the sole content provider or gateway to all required content wherever it may reside. However, compatible infrastructures and customisation of services to meet specific customer requirements is where the intermediaries of the future will play an important role in ways which extend the well established functions of agents in the print environment.

3.1 E-business and Subscription agents

Investment in systems and practices for electronic processing of orders, payments and other customer services and web-based value added services for customers and publishers, is essential for agents in maintaining their position as a valuable intermediary and aggregator in the electronic environment. Electronic processing of the agents' traditional subscription services is increasingly demanded by corporate customers who are looking for ways of streamlining their processes for the benefit of lower costs without compromising quality. That is why the next logical step for subscription agents is the rapid development of own e-commerce systems and procedures, the essence of which is speed of operation. This strategy is crucial and a natural extension of the agent's traditional role to support both customers and publishers by providing increased 'speed to market' of their products, for example through Electronic Data Interchange practices. The big subscription agents are used to exchange business data electronically with their partners already for a long time: subscription checklists, packing slips, invoices, claims for missing issues, price quotations, statistical reports with customers, renewals, invoices with publishers

The further development includes comprehensive online catalogues with integrated ordering functionality (web shops) as well as fully web compliant customer service and support. Another interesting direction is the programming of interfaces to link to e-procurement systems used by customers. These systems enable thousands of end users to place orders directly with preferred suppliers under pre-defined conditions.

For agents, e-business is a major opportunity to increase internal efficiency and quality at lower processing costs and to fully exploit their role in the new internet generation from the traditional 'backbone' of their service - streamlining the process of providing access to scholarly information. This is why the large agents are not afraid the Internet will harm

their position, they have proven successful at enabling the very many suppliers (e.g. Swets Blackwell trades with 65,000 publishers) and the very many customers (Swets Blackwell supplies to 55,000 customers with 400,000 shipping addresses) to do business efficiently. The use of Internet technology is simply a way of modernising our business practices (without of course forgetting the large investment and internal changes this demands) but with the promise of exciting opportunities to provide new and innovative services to customers and publishers as a result.

3.2 Content access platforms and E-journal services

Web technology and internet distribution offers increased opportunities for subscription agents not only to add value in the electronic business environment, but also to store, maintain and present the product, scientific content, via an own web platform. Competition, however, is increasingly diverse and intense. Publishers, libraries, and third parties have developed electronic journal services which compete with those of the subscription agents, and are highly cooperative at the same time. Major publishers have invested heavily in their own branded services, providing access to their e-journals e.g. Blackwell Science's Synergy, Kluwer Online, Springer's link, Wiley Interscience, Elsevier's Science Direct. Agents deliver the subscriber to them by way of a gateway link via aggregated services offering a single interface, e.g. Ebsco Online, SwetsnetNavigator, Information Quest. With the development of CrossRef, a growing number of publishers are cooperating with each other to offer seamless access to one another's journal articles. Meanwhile CrossRef publishers open their article link database also to affiliate members like subscription agents. Using the DOI technology (Digital Object Identifier) this enables agents to implement thousands of links to fulltext articles in their access portals without having to negotiate with every CrossRef publisher individually. Another linking technology which came up recently and which simplifies linking articles between different web services is SFX, developed at the university of Ghent and owned by the company ExLibris.

Customers, such as library cooperatives, are also both competing and cooperating by building their own electronic information access systems and interfaces.

3.3 Licensing of electronic information

Agents have taken a proactive approach towards the increasing trend for licence issues to dominate the electronic journal acquisition process. The major subscription agents contributed towards the sponsorship of a series of standard licences, compiled by the publishing consultant John Cox. As a result, a number of publishers have agreed to use these model licences as a basis to form agreements with libraries. This proactive approach clearly demonstrates the agents' interest to help and be creative in adapting to the changing environment, as licence problems are clearly related to electronic and not to print journals. It is also interesting to point out that the main purpose of this initiative is to simplify the licensing process and as result, to encourage the acquisition and access of electronic scholarly information. The value of a subscription agent has always been to streamline and aggregate information to make life easier for the information professional and as a result secure income for the publisher. It is natural therefore that agents are at the

forefront of initiatives to aid this process in response to the issues raised and procedures demanded by the advent of electronic publishing. Copies of the licences can be found at: www.licensingmodels.com

3.4 Consortia

The rapid increase in consortia purchasing has presented huge challenges to all players in the chain. From the agent's perspective, the last couple of years have been a time of experimentation and market research, keeping an open mind towards this new purchasing phenomenon and where it is heading. At Swets Blackwell we have developed Consortia Services for libraries, based on a modular approach, designed to offer flexibility and choice in the recognition that each consortium differs in structure and requirements. The Swets Blackwell Consortia Services are wide ranging and include information on different publisher pricing models and electronic journal availability; publisher contact and mediation for price quotations; financial management (invoicing and payment); licence administration; ongoing maintenance, updates and renewals.

In 1998, Swets Subscription Service (now Swets Blackwell) was appointed the Managing Agent for the UK National Electronic Site Licence Initiative (NESLI). NESLI's aims and objectives are to extend the availability of electronic journals to as many users as possible; to be attractive to publishers and libraries (and encourage participation) by simplifying the procedures involved in the purchase, access and management of electronic journals; to address the issue of serial price increases - as the trend continues for library acquisition budgets to decrease in real terms each year.

In its relatively short life, NESLI has provided a unique range of experiences for Swets Blackwell, and all parties involved, in areas such as publisher negotiations, e-journal pricing models, licensing issues and the arrangements for accessing journals. For 2000, agreements have been reached with 12 publishers, providing access to 2600 e-journals. A model licence (the NESLI Model Licence) is being used for the agreements between publishers and the participating higher education institutions. It is important to emphasise that as a result of the NESLI experience the appointment of a 'Managing' or 'Handling' Agent for consortia is in demand, a role the traditional subscription agent is well positioned to fulfil now and in the future. In the future, it is likely the position of 'Managing Agent' will be awarded following a tendering process, allowing agents the opportunity to present proposals, similar to the print business environment today.

4 The Future

In terms of predictions for the future, it is very likely that we will continue to see experimentation of systems, interfaces and procedures by libraries along with pricing models and policies by publishers for some time to come. There will be an increasing trend towards customisation of information on the part of the intermediary and the means of delivering this. Prices for electronic journals will increasingly move away from a historical print spend relationship, to other factors such as relative usage and size of the organisation. Increasingly we will see the choice to purchase individual electronic-only journals, together

with the option to buy subject specific packages and whole collections as is common today. Article pay-per-view will be offered by an increasing number of publishers, but quite possibly continuing to be viewed as marginal income. It is likely that there will be further adoption of model licences by both libraries and publishers.

Alternative electronic publishing will continue to grow as the speed and reach of the internet allows and library cooperatives grow in size and awareness. A publisher's added value which is now usually offered free as part of the 'deal', will become assets with a price attached as they increase in value to the end user i.e. backfiles, linking, usage data. Undoubtedly, consortia, multi-site and global licensing of electronic information will continue to grow. The result will be even greater need for intermediaries to play a leading role in co-ordinating and mediating between the consortium and a growing number of publishers who want to participate in consortial agreements

5 Conclusion

Through the midst of this period of rapid transition, it is clear that the most successful agents of the future will survive by continuing to follow the same fundamental and 'traditional' business practices as applied in the print world but with an acceptance that change is quicker and necessary. The change from 'print information' to 'print and electronic information' and subsequently to 'electronic-only information' will not fundamentally reduce the potential of adding value for intermediaries like Swets Blackwell, Ebsco and Rowe-com. However, realising this potential has required some fundamental changes in product range, internal procedures and systems; innovation and development skills; and of course speed.

For as long as the supply side of the chain remains fragmented (more than one publisher), agents will continue to add value as 'consultant' (handling e-journal pricing and licensing issues); as information aggregator, offering customised 'turnkey' services compatible with library systems; and as 'service provider' serving help desk and trainer roles. As a result, agents have, and will continue to, develop new services, systems and internal procedures to meet these demands.