

EASY Does It: A Fresh Approach to Electronic Article Supply

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Abstract:

This paper presents a progress report on a project which has been funded by the UK's Joint Information Systems Committee (JISC). Known as EASY (Electronic Article Supply), it adds an electronic delivery dimension to an existing traditional library loan system.

Key features of the system are the prices set for the articles and the distribution of income. Both publishers and libraries benefit from the system. Libraries pay essentially the same price for an electronically delivered article as they do for normal ILL delivery. And for the first time publishers who are taking part in the project get revenue from each electronic ILL.

1 Introduction

EASY is a two-year document delivery pilot project run jointly in the UK by Ingenta and the University of Lancaster. The current phase of the project is due to run until June 2002. The main aim of the project is to test the feasibility of satisfying inter-library loan requests in digital form directly from publishers' servers. These requests would otherwise have been satisfied by either photocopying or scanning by the supplying library and sent either to the requesting library or directly to the end-user. The service is not a separate ILL (Inter Library Loans) service; using the OpenURL standard it is designed to be integrated with and complement existing ILL services. The concept is being tested with ILLOS, Lancaster's widely implemented ILLOS inter-library loan management system, working alongside Ingenta's electronic full-text document supply service, ingenta.com.

The project demonstrates three benefits to the three principal stakeholders, librarians, publishers and library users:

- Publishers benefit by receiving income from the supply of EASY articles in response to ILL requests, where they would otherwise have received none
- Librarians benefit from streamlining of ILL provision at no greater cost
- Users benefit from rapid delivery of original-quality copies, which they may print or store electronically.

There are several parties involved in the EASY project. The initiative is supported by both the UK's Higher Education community and the Publisher's Association. The implementation of the proposal is being carried out jointly by the University of Lancaster and Ingenta.

2 Background

The original proposal (<http://www.jisc.ac.uk/pub99/jp-edd-prop.html>) was developed in response to JISC's (Joint Information Systems Committee) 1999 Call for Proposals for a "pilot project for the supply of electronic documents, complementing 'inter-library loan'". This followed an investigation by a joint working party of the Publishers' Association and the JISC:

'The Working Party quickly recognised that 'inter-library loan' is a misnomer for the kind of service libraries were considering but that its continuing use symbolised for librarians the resource-sharing to which they are committed for the public good. The speed, quality and convenience of electronic copying could lead to unreasonable or illegal copying and redistribution and thus undermine publishers' traditional subscription income. However, if these concerns could be resolved, there is an opportunity for publishers to improve the quality of the articles delivered to end-users by supplying electronic copies. To address publishers' concerns, the working party considered the various technical and procedural options subsumed under the term 'inter-library loan' or 'document delivery' and recommended only those arrangements which would not threaten publishers' legitimate income. The working party wished to establish procedures which would enable publishers and librarians to work together in a controlled but fair environment.'

The University of Lancaster is the home of the ILLOS inter-library loans management system (<http://www.illos.lancs.ac.uk/>). First developed in 1985 to meet an in-house requirement for an automated ILL request management system, it is now installed at 55 libraries in the UK

and elsewhere and handles around 600,000 document requests a year. The ILLOS system has been extended for the EASY project to check for electronic article availability, and to initiate delivery and charging. It has been made available to participating libraries as a no-cost enhancement to the ILLOS software.

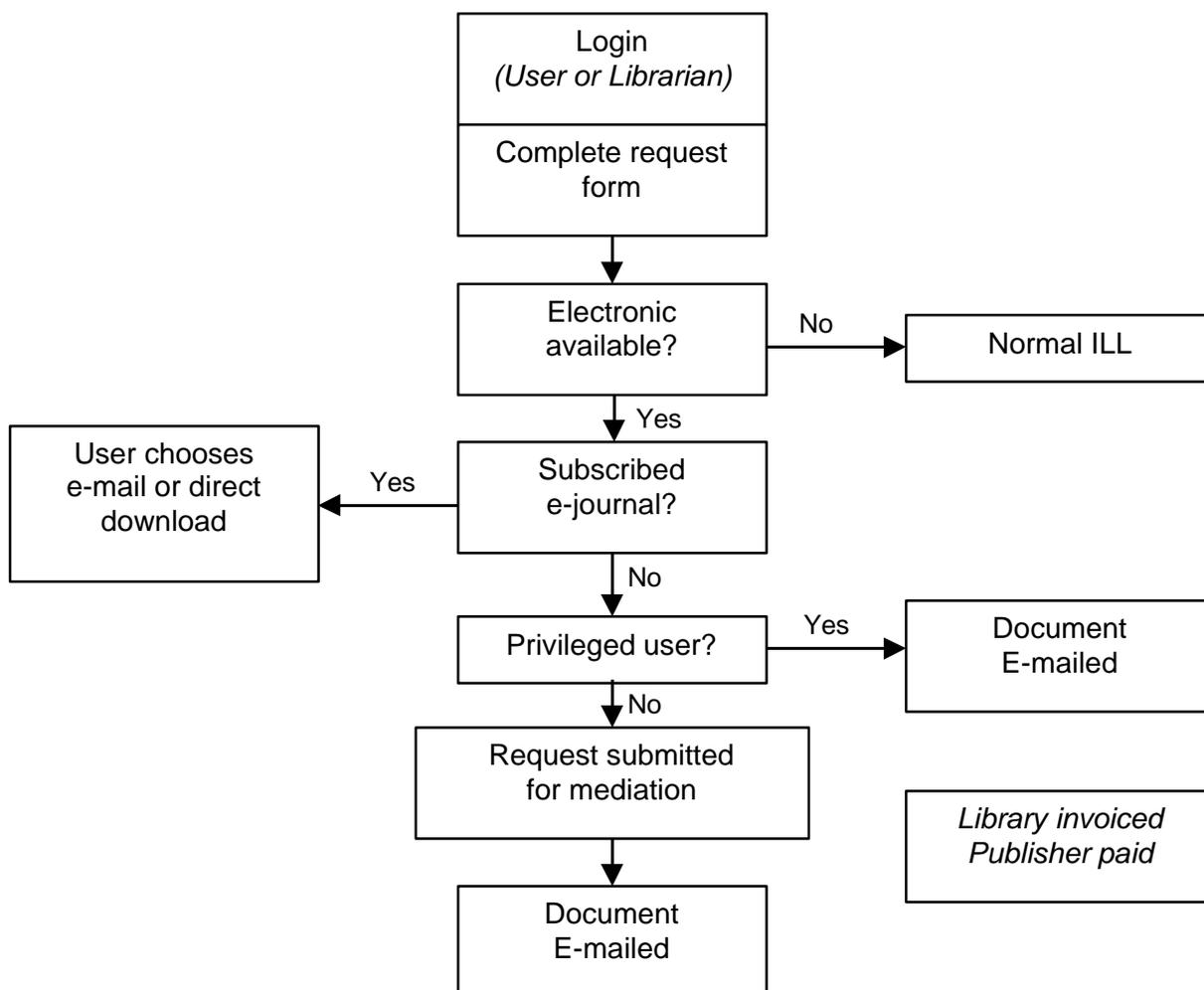
Ingenta (<http://www.ingenta.com>) was founded in 1998, initially located on the campus of the University of Bath. Originally formed to take over management of the UK's widely used BIDS service, it has rapidly grown into a major world player as a resource discovery service and aggregator of electronic journals. It now has offices in UK (Bath, Oxford) and the US (Cambridge, Providence) and around 240 staff. It has recently announced that it has moved into profitability, ahead of schedule. The [ingenta.com](http://www.ingenta.com) service currently provides online access to over 1.4 million electronic full text articles drawn from over 5,200 titles and 160 publishers. The service also provides fax delivery services for many more journals, giving access in total to over 10 million articles.

The success of the EASY project is crucially dependent on the involvement and co-operation of a critical mass of academic journal publishers. At the time of writing, a total of 17 publishers have signed agreements to work with the project including: Oxford University Press, CABI Publishing, Nature, Adis International, Arnold, Association of Applied Biologists, Bentham Scientific Publishers, BIOS Scientific, Geological Society, Institute for Fiscal Studies, Institute of Materials, IOS Press, John Benjamins, White Horse Press, the British Trust for Ornithology, and Kluwer. Between them they will be offering a total of 850 publications for delivery through the EASY system. Meanwhile discussions and negotiations are taking place with a number of other publishers; so far a further 5 have agreed in principle. Several of the (mostly) larger publishers have declined to take part in the project, including Elsevier Science, Blackwell Publishers, John Wiley, and Institute of Physics Publishing. On the whole it has been the smaller publishers who have been more receptive to the concepts behind EASY.

Finally, and perhaps most importantly, the project would not be worthwhile without users. Access to the EASY service is via an enhanced version of ILLOS (Version 2.1E). Although this enhancement has been at no cost to them, implementing and rolling out this system to all eligible libraries has taken longer than originally envisaged. At the time of writing 8 libraries have got the latest version of the system installed and are actively taking part in the project. A further 8 have the system installed but have not yet activated involvement in EASY.

3 How does EASY work?

EASY is an enhancement to the ILLOS system. ILL requests presented to the upgraded ILLOS system are automatically screened for e-doc availability via Ingenta. If an electronic version of the document is available from Ingenta but the user's library does not have a subscription, then the request is checked to see if it is possible to purchase an electronic copy.



If the request cannot be satisfied by the Ingenta system, it is passed for 'normal' ILL processing. If an electronic copy is available and the user has appropriate privileges (because they are an ILLOS administrator, or because they have been granted devolved unmediated ordering powers within the ILLOS system), they may go ahead and order it at a standard charge of £4.20. The document is then immediately e-mailed. Otherwise the request is referred for authorisation by ILL staff who can either order the item from ingenta.com for e-mailing to the user, or ignore the Ingenta availability, process the request in the normal way and obtain the item elsewhere. Safeguards are built into the system to prevent unauthorised copying and redistribution of electronic copies of articles. Finally, the system ensures that the library is invoiced and the publisher is paid.

4 Measuring Success

4.1 Project Monitoring and Evaluation

The project has a steering committee which at the time of writing is jointly chaired by Fred Friend of University College London, and Sally Morris of ALPSP (Association of Learned and Professional Society Publishers).

Evaluation is being carried out by Prof. Peter Brophy of the Lancaster Information Management Consultancy under contract to the JISC. An interim report was produced (Lancaster Information Management Consultancy) and submitted to the JISC in December 2000. Much of what follows is taken from that report, supplemented by experience gained since the report came out.

4.2 Critical Success Factors

The interim report concluded by identifying a number of critical success factors. The first, and perhaps the most important, is the viability of the economic model, a key component of the experiment. Librarians had indicated that supplier decisions are almost entirely driven by price. More expensive options were only considered in exceptional circumstances, where there was a need for urgent delivery for example. In this matter, the target price tends to be set by the British Library, with others (such as LAMDA) tending to track BL's prices. At the same time the publishers and Ingenta are also looking for income streams that exceed costs.

Another of the factors identified in the report is described as 'stakeholder satisfaction'. While acknowledging that this is a broad concept, the report identifies the stakeholders as end-users, librarians, publishers, Lancaster University and Ingenta.

To make the outcome of the project meaningful, one of the more challenging success criteria is the general scale of activity during the project, including levels of participation by publishers, libraries and end users, and the scale of delivery of documents from publishers to libraries and end-users. The levels of participation during the course of the project will determine whether the project could be considered as simply a 'proof of concept' exercise, or a pre-production demonstrator.

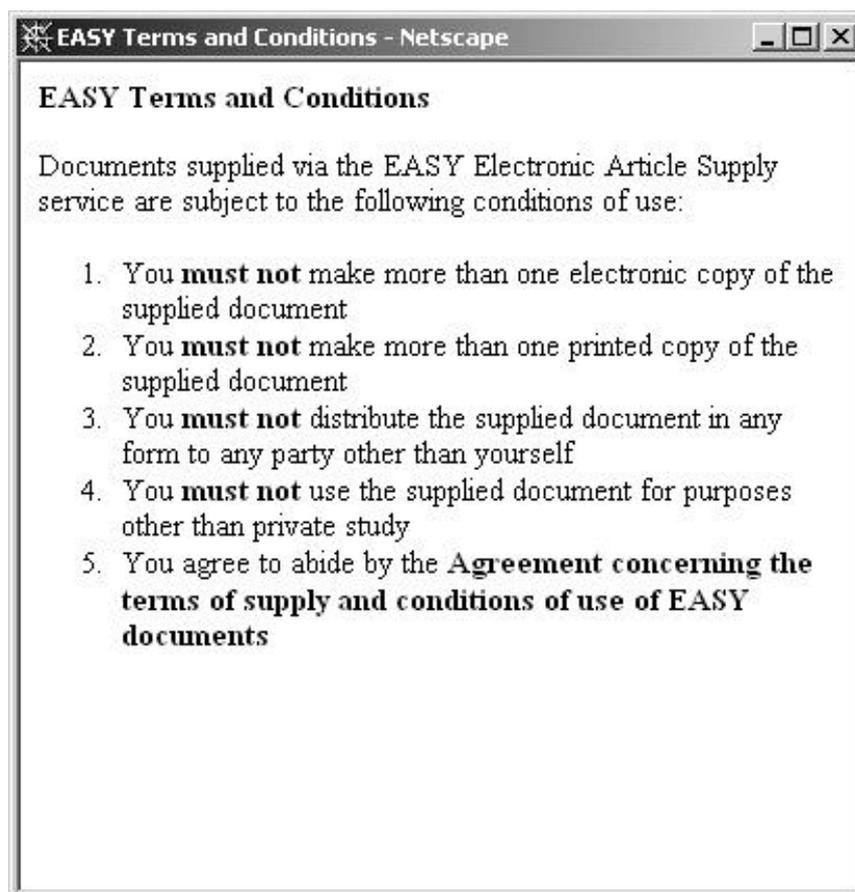
4.3 Publisher Involvement and Reaction

As already mentioned, a key factor in the success of the project has been getting a sufficiently large number of publications available through the service in order to make it useful. In practice it has been a long and labour-intensive exercise bringing publishers on board. For each publisher, it takes Ingenta sales staff a significant amount of effort to explain the details of the project and why it is worth their while taking part. They then have to sign an agreement to enable their publications to be made available. On the financial front, there are two opposing arguments from the publishers' perspective. On the one hand, they might be seeing single article sales yielding an income significantly below that which they would normally charge, suggesting a loss of revenue. The counter-argument is that current ILL transactions do not involve the publishers at all, and so this could be regarded as a new and additional income stream.

Once these issues have been talked through, it has been possible to attract a significant and growing number of Ingenta's publishers to participate in the exercise. At the time of writing 17 publishers have signed agreements, representing around 1000 different titles. A further 5

have agreed in principle, while another 21 are reviewing their options. So far, for various reasons, 21 publishers have chosen not to take part (5 of these because of take-over moves within the industry). Those not participating include some of the larger publishers such as Blackwell Publishing, Elsevier and Wiley. However those taking part do include Kluwer who have over 740 titles.

A key issue for publishers, apart from the amount they get from each article sale, has been security. There seems to be a widespread concern about 'leakage' – that once an electronic article has been delivered to the end user, that it could then be passed around the community. The ILLOS system makes it very clear to the user what the conditions of use are and they are displayed on screen and also when the article is delivered.



4.4 Library issues

Libraries are generally enthusiastic about the project (once they understand what it was about). For example, in a survey carried out for the report, one response was

'an exciting development which provides the opportunity to integrate electronic journals with the ILL service'

A number of specific issues were however raised. There was some concern about the possible impact on staff workloads. While the system has the potential for reducing staff time (screening and dealing automatically with requests for already subscribed material for example), librarians surveyed didn't seem to feel this would be a major effect.

In the survey, librarians defined the critical success factors to be:

- cost must be no more than the British Library's
- ease of use, including issues related to financial management, fuzzy matching, error reporting and single authentication
- availability for off-campus use.

The main concerns that emerged were:

- copyright
- staff time implications, especially in handling failed requests and recharging
- access, especially turnaround time and any competition with subscribed journals
- limitations of email systems, especially for handling attachments
- charges for the service, with some emphasis on emerging competition
- potential negative impacts on non-electronic ILL
- budgetary management and control systems, and especially recharging users and departments.

Librarians generally felt that they would only accept a flat-rate charging regime, keeping down administrative overheads (and also to compete with conventional ILL). However some were concerned that this would deter publishers of high-value journals from participating and thereby limit the usefulness of the service.

4.5 User issues

From an end-user perspective, the EASY system holds out the promise of much easier access to material not available through the local library. Ordering of documents is carried out via a web-based order form, and delivery can be either directly to the user, or mediated by the ILL librarian. Documents are normally delivered to the user as e-mail attachments.

There are however a couple of issues that could make the system seem less than perfect to some users. One is related to the way it decides whether or not a document is available electronically. It is clearly quite possible that the user will not complete all details of the form with total accuracy. The system then relies on some 'fuzzy matching' software to match with the database. In practice the details have to be quite close to correct before an automatic match and delivery is made. This potentially reduces the number of successful matches made for documents that are available electronically. A refinement of the system will allow the user to be prompted with the information that the journal is available even if the article description didn't match, enabling the user to recheck the details.

Another area of concern is the mechanism used for delivering documents to the user (e-mail attachments). There are two ways in which this might fail. The users mail system might have an imposed limit of, for example, 1 megabyte per message, creating problems for large PDF files perhaps containing many images. The second problem is with users with mailboxes that are close to full and unable to receive even small attachments. These are issues that will be closely monitored through the trial to see if they are significant.

5 Prospects & Future Developments

The next 9 months, up to mid-2002, will be a critical phase for the project. In the UK, at the time of writing this paper (October 2001), we have just started a new academic year so there is some expectation that serious use of the service is about to take off. With growing use comes the prospect of an increase in participation by publishers, leading hopefully in turn to increased interest by libraries. This should further increase usage. (My engineering background would lead me to refer to this effect as 'bootstrapping'!).

The systems that Ingenta has developed to work with ILLOS in the EASY project are flexible and designed to work with other ILL systems. Recently discussions have been opened with the DocuSend (<http://www.jisc.ac.uk/dner/programmes/projects/docuend/>), another JISC sponsored service led by King's College London to explore ways in which their system could interface with the Ingenta half of EASY.

As well as opportunities, there are also threats (more constructively perhaps, challenges) from various quarters. Not least of these is the British Library Document Supply Centre who have started to enter into negotiations with publishers to allow e-document delivery through their ILL systems.

And finally there is the whole wider world of freely accessible material on the web. The author of the report to the JISC quoted in this paper describes how he had analysed another research report he had worked on, and found that over 50% of the works cited in the report were freely available on the web.

6 Conclusions

This paper has been written with the project still having a year to run. Its success will be determined largely by the eventual scale of take-up by publishers, librarians and end-users. It is currently (October 2001) the start of the (Northern Hemisphere) academic year, and the hope and expectation is that the next 9 months will be a good test period for the trial service.

Another important measure of the value of the project will be the effect it has on the attitudes of the publishing world to the business model represented by the project. It is hoped that by the end of this phase of the project, many of these issues should be a lot clearer.

Reference

Lancaster Information Management Consultancy Dec 2000 "Evaluation of the pilot project for the supply of electronic documents, complementing 'inter-library loan': Electronic Article Supply (EASY) 1st Interim Report"