

Cross-border document delivery – The convenience and perils of sharing articles around the world, in the cloud.

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Abstract

In January 2012, OCLC launched Article Exchange – a cloud-based document delivery service -- as part of its core ILL service, which is used worldwide by more than 9,000 libraries. A year later, this cloud based service is used by more than 1000 lending libraries in 15 countries. More than 50,000 individual documents were uploaded in January 2013 alone.

The issues of cross border document delivery are compounded by copyright laws around the world. This new cloud based delivery method has also affected library workflows by introducing a new dynamic to electronic document delivery.

This paper will explore the cloud as a mechanism for document delivery. We will explore the traffic of documents moving around the world, examine known copyright limitations in some jurisdictions, and what that means for Article Exchange specifically and document delivery more broadly.

Introduction

Interlibrary loan has a long history of using technology to supply photocopied or scanned articles, beginning with fax machines in the 1980s, when the machines became cheap enough for libraries to purchase. A lending library would retrieve a journal from the shelves, make a photocopy of the article requested, and fax it to the requesting library's fax machine using a telephone line. Staff at the borrowing library would notify the end user that the item was available for pick up.

An application called Ariel was introduced by the Research Libraries Group (RLG) in the early 1990s. As access to the Internet became prevalent and when a Windows-compatible version was developed in 1994, its use in libraries really took off. At its peak in 2002, Ariel was used in an estimated 8,000 libraries worldwide. Ariel became the de facto standard for document delivery in the 1990s. A few other PC-based document delivery products were introduced between the 1990s and 2011 but none challenged Ariel's dominance."

As long as the requesting library and lending library both had the Ariel software installed on a PC, and the lender knew what IP address or email account to send to, a library could send scanned copies of articles efficiently to other libraries anywhere in the world. This reduced the cost of sending a copy of an article and negated the need for fax machines as well.

Times have changed since the Ariel software was dominant. This article explores the development of an OCLC application called Article Exchange, its use in the ILL workflow and its alignment with licenses and copyright law in a number of legal jurisdictions.

About Article Exchange

Originally developed by OCLC's Innovation Lab, Article Exchange was an outgrowth of OCLC's initial explorations into cloud computing. The idea was first discussed in April 2011 and the service was announced as an experimental service at the ALA Annual Conference in June 2011. OCLC users were excited about the pilot service because, as Collette Mak, from the University of Notre Dame, commented, "It really fills a need". By this time, many libraries were struggling with Ariel: it was not compatible with Windows 7, which was becoming increasingly prevalent. Within a few months, libraries were uploading an average of 350 documents per day. On 17 January 2012, the service moved out of its experimental phase and became an OCLC service, made available to all OCLC ILL subscribers worldwide. The service was and remains available to libraries (with the appropriate ILL subscription) at no additional charge to libraries.

Article Exchange is used by lending libraries in many countries from Armenia to the United States of America and in August 2013, it was used by 1200 libraries and there were 48,214 uploads.

How it works.

Using any web browser, a lending library can upload a copy of an article that they either already have as an image file or have scanned from for a borrowing library. Once uploaded, the file is stored in the cloud where the borrower can access it. When the lender has completed the upload process, Article Exchange generates a

unique URL and password which is used by the borrowing library to access the file. All Article Exchange transactions use a shortened URL (oc.lc) so that the borrower knows the source is trusted.

At its most simplest, the application generates an email using the lender's email account that can be sent to the requesting library. The email contains bibliographic data about the item, the URL and password needed to retrieve it, and the service constraints.

1. Once the borrower retrieves a file, it remains available at that URL for thirty (30) days.
2. Each document file can be retrieved a maximum of five (5) times.
3. After thirty days, the file will be removed from the Article Exchange site.
4. Files that are not retrieved remain available for 30 days following the original upload date. After 30 days, whether or not the file has been downloaded, all files are automatically removed from the Article Exchange site.

Article Exchange does not accept all file types, but it does support image file types. The following are supported - BMP, GIF, J2K, JIF, JFI, JFIF, JP2, JPE, JPEG, JPF, JPM, JPX, JPG, MDI, MJ2, PEG/JFIF, JPEG 2000, PDF, PNG, PSD, TIF, TIFF, TGA, TPIC, WEBP and ZIP.

No metadata is associated with the uploaded file, it is simply a document with an associated URL and password. It is this element that makes Article Exchange secure.

Alternatives

An alternative to Ariel is Odyssey. Odyssey and ILLiad are developed by a company named Atlas Systems that has an exclusive sales and marketing agreement with OCLC. For the 1200 libraries (predominantly in the USA) that use ILLiad software, the Odyssey software offers tightly integrated, peer-to-peer document delivery, which works in a similar way to Ariel. It is worth noting that ILLiad integrates very tightly with OCLC ILL. However, OCLC ILL is used by some 8,000 libraries around the world, and while a stand-alone version of Odyssey was available at no cost, it was neither straightforward to install nor to use. For non-ILLiad libraries, Article Exchange therefore came at exactly the right time, given the issues with Ariel and Windows 7. Every library with a subscription to the OCLC ILL service had access to Article Exchange at no additional cost.

In addition to its use between non-ILLiad libraries, Article Exchange is also used by ILLiad libraries supplying articles to non-ILLiad libraries. An Application Programming Interface (API) was developed for Article Exchange in early 2013, and with the release of ILLiad 8.4 in May 2013, OCLC and Atlas Systems introduced tight integration between ILLiad and Article Exchange.

The use of email to send a PDF file to a requesting library is prevalent today. There are two key considerations which should be taken in to account when using this methodology. Firstly, the file size may be too large to email. This is a disadvantage for articles with detailed, colour images. Secondly, email is not secure and therefore how the patron receives the article should be considered before forwarding an email attachment directly to the patron.

Electronic journals, licenses and secure electronic transmission

With the introduction of electronic journals in the late 1990s, and therefore the introduction of licenses, the landscape has changed significantly. For many years, many libraries would not fill a request for a title held electronically. This is for two key reasons. Firstly, lack of knowledge about the institution's licenses terms and secondly, the lack of an efficient workflow. This is slowly changing with many library staff now working out their own workflows or using tools that are now available to them, such as OCLC's Knowledge Base and/or functionality available in ILLiad for example.

Where an article is available as a PDF, then the workflow using Article Exchange is straightforward, because the supplying library staff can save the PDF and upload the file, eliminating the need for the article to be scanned (unless the license demands it).

Article Exchange and Licenses

In many legal jurisdictions, a license between, for example, the publisher and library, regarding access to an electronic resource, carries more weight than the law. So the library has to adhere to what they have agreed to in the license, rather than what copyright law might say. Often, it is said that a license “trumps” the law. There are moves in the UK to change this around.

For lenders who subscribe to electronic resources, the terms of the license are therefore key when it comes to using Article Exchange to supply materials to borrowing libraries. If the lending library’s license says that ILL is indeed permissible, with certain constraints, then the lender must adhere to those constraints. If a license dictates delivery method by Ariel then the lender must adhere to those restrictions. This can be managed by working with those library staff that negotiates licenses.

The publically available Terms and Conditions for use of JSTOR has a section on interlibrary loan that states

“Transmission of Licensed Content that consists of Textual Content or Specimens from one library to another (but not directly to users) **through post or fax, or secure electronic transmission, such as Ariel or its equivalent, may be used in Interlibrary Loan.**”

Elsevier’s ScienceDirect website includes its Interlibrary Loan Policy and uses very similar language:

“The requested article or book chapter is **printed by the subscriber mailed, faxed or transmitted by Ariel (or a similar ILL system)** to the requesting library.”

While Ariel and Article Exchange differ at a technical level, they are similar in terms of what they do which is transmit copies of documents securely between libraries. With this in mind therefore, where a license agreement indicates “Ariel or its equivalent” then Article Exchange should be considered as an equivalent tool. OCLC has been working directly with some publishers so they understand Article Exchange and are aware of it.

Elsevier also includes a note on national boundaries which states

“Interlibrary loan, and the legal basis for such activities, may vary from country to country. As an international publisher, Elsevier has worked hard to establish an international level playing field, where all libraries can provide documents to libraries on the same terms and conditions. Those terms are intended to support domestic ILL. They are also intended to rein in those libraries who have abused ILL and provide what is more accurately described as document delivery to anyone anywhere in the world in the name of ILL.

In the US, ILL operates within the CONTU guidelines, which provide a balance between free ILL and payments to publishers. The responsibility for adhering to CONTU rests with the requesting, not the fulfilling, library. Requesting libraries located outside of the US are not part of the CONTU agreement and have no restriction on the number of copies requested on a free (no royalty) basis. That is not a level playing field.”

It is therefore absolutely fundamental that libraries understand their licenses particularly with regard what is acceptable to the publisher in terms of interlibrary lending. Ensuring that staff are familiar with license terms can be a complex and time-consuming task in libraries with many staff and multiple electronic collections. But it is possible to automate some of this workflow. For example OCLC has integrated its electronic resources Knowledge Base with ILL workflow. The benefit to libraries is that a supplying library can fill a request from its electronic resources within minutes because the Knowledge Base which sits behind the ILL application is able to add a hyperlink, which is usually a deep link to the article. The staff member is then able to follow that link, save the PDF, and load that same PDF in to Article Exchange. This offers a much more streamlined workflow than manually checking licenses, using an A-Z list and then digging in to the content provider’s website to find an article.

It is worth noting that usage of this integrated service is not widespread, because of the effort involved in encoding the library’s license terms and perhaps a lack of knowledge where licenses are concerned.

Libraries that lend materials should determine their policies on electronic content. This involves being able to manage ILL lending workflows at the license level so that only content that is permitted is supplied, or determine that their policy should be to not supply articles from their electronic collections.

It is also worth noting that some licenses require non-US libraries to follow US Copyright law rather than their own country’s copyright law. This is challenging to say the least. As Tiessen (2012) comments “There is nothing

equivalent to section 108 (g) (2) in Canadian law, yet it isn't uncommon to find Canadian libraries that have signed licences requiring them to follow this and other parts of American law."

Copyright and the European Union

European Union (EU) directives "lay down certain end results that must be achieved in every Member State. National authorities have to adapt their laws to meet these goals, but are free to decide how to do so". It is therefore worth considering two EU countries which have two very different approaches to copyright, in spite of the European Union directive on copyright which was introduced in 2003.

Copyright in the UK

UK copyright law is focused on the notion of "library privilege" whereby the users of UK registered organisations can use resources for the purpose of a non-commercial nature or private study.

A declaration must be signed personally by the end user for all copies that are produced and supplied. These declarations must be held for seven years by the requesting organisation. The British Library website has a sample declaration form which includes the following text:

- (a) I have not previously been supplied with a copy of the same material by you or any other librarian;
- (b) I will not use the copy except for research for a non-commercial purpose or private study and will not supply a copy of it to any other person; and
- (c) to the best of my knowledge no other person with whom I work or study has made or intends to make, at or about the same time as this request, a request for substantially the same material for substantially the same purpose.

The debate in the UK is often about the validity of electronic signatures for this declaration and whether a user can sign once and that will address all their requests, rather than signing for each individual copy. The workflow for the library user is therefore is not straightforward when requesting an interlibrary loan. Many UK libraries do not offer online requesting. This is for two reasons. Firstly, the question of a signature and secondly, mainly libraries charge for interlibrary loan.

Additionally, as the University of Leeds explains on its website "It is against copyright law to be supplied with more than one article per issue of a journal, more than one paper from a particular conference, or more than one chapter from a book. If you require more than one item from the same publication or have already been supplied with a copy from the same publication, you should request a loan of the full item and we will try to borrow it for you instead." This means that libraries in the UK will often borrow a complete issue of a journal or the entire book.

There are therefore no impediments in UK Copyright Law regarding document delivery services and electronic document delivery, so libraries in the UK that use OCLC ILL are able to use Article Exchange for secure document delivery.

There are interesting moves afoot though in the UK regarding licenses and copyright law which would result in contracts not overriding exceptions. As Charles Oppenheim stated at the UK's Forum for Interlending conference in July 2013 "If the law changes so that contracts cannot ever override exceptions, then the problem is solved – you [libraries] are permitted to provide ILL under the law, and will be able to irrespective of any contract that purports to stop you, whether what contract is from CLA [Copyright Licensing Agency] or from a journal publisher." This would result in lender libraries being freely able to fulfil ILL requests for materials that they subscribe to without meeting the conditions of the license. This is a significant change in the way in which licenses and ILL work.

Copyright in Germany

In contrast to the UK, (and the USA – see below) where there are no legal constraints on the supply of electronic documents, the position in Germany is very different. This is very thoroughly explored in an article written by Uwe Rosemann and Markus Brammer, published in *Interlending and Document Supply* titled "Development of document delivery by libraries in Germany since 2003", published in 2010. Since 2003, electronic document delivery has not been prohibited between libraries, and as such fax and mail are the only permissible options. It is clear therefore that libraries in Germany should not use Article Exchange and the Article Exchange statistics confirm that none of the OCLC ILL lending libraries in Germany use Article Exchange.

Article Exchange is used by libraries in many other European countries including Denmark, Italy, the Netherlands, Norway, Slovenia, Spain, and United Kingdom.

Copyright in the United States of America

The First Sale Doctrine in the USA enables libraries to lend books and other resources. This is codified in Section 106(3) of the Copyright Act of 1976. In US copyright law, “fair use is a doctrine that permits limited use of copyrighted material without acquiring permission from the rights holder”.

Fair use was further defined in what is known as the CONTU Guidelines which “were developed to assist librariansin understanding the amount of photocopying for use in interlibrary loan arrangements permitted under the copyright law”. It is important to note that as Elsevier’s website states, “The responsibility for adhering to CONTU rests with the requesting, not the fulfilling, library.” The CONTU Guidelines apply only to requests for articles published within 5 years prior to the date of the request. The library can request and receive copies of up to 5 articles from any single journal during a calendar year and that use will be considered fair. If a patron’s request would result in the library requesting 6 or more articles...the library can (a) deny the patron’s request (b) subscribe to the journal or (c) pay a copyright fee or royalty on requests that exceed these guidelines.

All requests must include a declaration of copyright compliance by the borrowing library. Where the request complies with the CONTU Guidelines, the requesting library would state CCG (G = Guidelines) otherwise the compliance statement would be CCL (to show compliance with US Copyright Law). The requesting library must keep records of all borrowing requests, filled and unfilled, for three years.

The lending library checks for CCG or CCL on the request, and includes a notice of copyright on all copies.

In the USA, the Copyright Clearance Center (CCC) handles royalty payments for many publishers, but not all. In addition, many US libraries use the CCC to manage their copyright payments to publishers.

At this time, in terms of copyright law in the USA, there are no constraints on delivery methods used to supply an interlibrary loan request. Because of this, American lending libraries are legally able to use Article Exchange, Odyssey, Ariel, email or any other technology – provided the library is supplying a copy of an item it *owns outright*. But remember – if the lending library is supplying from a licensed electronic resource, then the terms of the license must be taken in to consideration, beyond what is allowable by law.

Copyright in Canada

Copyright legislation in Canada has gone through some significant changes in the last few years. “Current copyright law was established by the Copyright Act of Canada, which was first passed in 1921 and substantially amended in 1988, 1997 and 2012.” The 1997 amendment “created a number of problems for libraries”¹ and specifically prohibited the making of digital copies. The legal situation changed in 2004 when CCH Canadian Ltd sued The Great Library of the Law Society of Upper Canada for copyright infringement. The Supreme Court ruled in favour of the Law Society and as result Canadian libraries could choose to interpret the law as it stood prior to the 1997 amendment under fair dealing.

After three attempts to further amend the Act failed, in 2012, the Copyright Modernization Act received royal assent and came into force on November 7th 2012. As a result, “libraries, archives and museums are able to ... distribute materials digitally; provided that they take measures to ensure that the patron prints one copy only of the digital form, does not communicate the copy to another person and does not use the digital copy for more than 5 business days of first using it.”

The introduction of the “5 business days of first using it” has significant implications for requesting libraries that would like to use Article Exchange in Canada. At this time, Article Exchange has a global setting for the number of views and the period of time after which a document is deleted. This period is 30 days. Additionally, Article Exchange does not have any digital rights management, because it does not handle the document directly. It is simply an application that uploads and downloads files. It would be the responsibility of the library that uploads the file to build digital rights management into the file itself. However, this is not to say that a Canadian library cannot receive documents from lending libraries via Article Exchange. Borrowing libraries

should think carefully about whether they want to have their patrons download documents from Article Exchange directly given legal restrictions. Where a Canadian library has a local ILL or document delivery system, then the borrowing library could load a document in to that local system which has local configurations. The patron could then download from that site.
