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CAUSeS: An Alternative to CONTU for Assessing Interlibrary Loan Copyright Fees

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Abstract
This article describes the process used at the University of Massachusetts Amherst Libraries to develop and implement a new method for interlibrary loan copyright fee assessment as an alternative to the outdated CONTU (Commission on New Technological Uses of Copyrighted Works) which we call "CAUSeS" (Copyright Assessment for Uses that Substitute for Subscriptions), by reviewing legal standards and considering practical needs.

Keywords: copyright, CONTU, resource sharing, interlibrary loan, evaluation, assessment, collection development, CAUSeS algorithm

Introduction

As academic libraries have increasingly moved away from the outdated CONTU (Commission on New Technological Uses of Copyrighted Works) framework, we have been left with the question – if not CONTU, then what? At the University of Massachusetts Amherst Libraries, we assembled a team, reviewed the legal standards, developed a novel algorithm which we call CAUSeS (Copyright Assessment for Uses that Substitute for Subscriptions), and implemented a new workflow. In this article, we discuss our process to create and implement this algorithm as an alternative to CONTU.

Background

CONTU Model

Interlibrary loan is explicitly authorized by Section 108 of the United States Copyright Act, which states, regarding "article[s] or other contribution[s] to a copyrighted collection or periodical issue … or to a … small part of any other copyrighted work," that it is "not an infringement of copyright" for libraries to "reproduc[e] and distribut[e]" works under particular circumstances. (17 USC 108(a) and (d).) Section 108(e) authorizes the reproduction of an "entire work" where a copy cannot be obtained "for a fair price" in the market. Our paper addresses only Section 108(d), reproduction of an "article or other contribution to a copyrighted collection or periodical issue, … or a small part of any other copyrighted work."

Section 108(g)(1) further notes that "isolated and unrelated" reproduction or distribution of the same material on separate occasions is permitted, and that this clause does not prevent libraries and archives from participating in interlibrary arrangements so long as neither the "purpose [n]or effect" of ILL arrangements is to borrow materials "in such aggregate quantities as to **substitute for a subscription to** or purchase of such work." (emphasis added)

After the passage of the 1976 Copyright Act, a number of working groups were convened to provide guidance to varying aspects of the new copyright law. The Commission on New Technological Uses of Copyrighted Works (CONTU) final report in 1978 included a simple framework for interlibrary loan which proposed that borrowing more than five articles published in the most recent five calendar years from the request constituted a "substitute for a subscription", meaning libraries should pay licensing fees for any subsequent articles borrowed (National Commission on New Technological Uses of Copyrighted Works (CONTU), 1978, p.55). The rationale at the time was that journal article access was enabled by building collections of print journals, and issues older than five years were not deemed relevant to subscription decisions.

The CONTU approach was meant to be continually revised as market conditions evolved, with the original report stating that "these guidelines shall be reviewed not later than five years from the effective date of this bill", i.e., 1983 (National Commission on New Technological Uses of Copyrighted Works (CONTU), 1978, p.55). Unfortunately CONTU has never since been revisited or revised, and 45 years later, the underlying economic model of publishing, subscriptions, and access to back issues and individual articles, is entirely different.

After years of critique of the increasingly outdated CONTU standards, the dam began to break. In 2016, the Interlibrary Loan Committee, Reference and User Services Association (RUSA) of the American Library Association revised its interlibrary loan guidance to state that the appropriate standard for libraries to employ was to ”comply with U.S copyright law (Title 17, U.S. Code (US Congress, 1958)) and be aware of related guidelines for copy requests”, rather than mandating compliance with CONTU specifically (Interlibrary Loan Committee & Reference and User Services Association (RUSA),), 2016, item 4.8).

Shortly thereafter, Georgetown University undertook a substantial re-assessment of CONTU and the law around resource sharing. Georgetown’s copyright attorney, Meg Oakley, performed an extensive review which laid the foundation for a subsequent Association of Research Libraries (ARL) white paper (2020) on the topic. Both found that given the extreme shifts in economics of scholarly publishing and the effects of technology on virtually all aspects of publishing and information access, the determination that five articles published within the last five years constituted “such aggregate quantities as to substitute for a subscription” no longer made sense.

At the 2019 OCLC Resource Sharing Conference, Amanda Rudd, Interlibrary Loan Services Supervisor at Georgetown University Library, and Brian Miller, Head, Interlibrary Services, Ohio State University Libraries, presented on their respective processes for evaluating interlibrary loan copyright payments without CONTU, and shared examples of their new institutional policies.

Institutional Context

The University of Massachusetts Amherst is a large public research university with over 15,000 interlibrary loan borrowing requests for articles in a typical year. We use ILLiad as our resource sharing management system, share primarily through OCLC and RAPID, and purchase articles via ReprintsDesk or directly from publishers as well as paying licensing fees through Copyright Clearance Center (CCC) as needed.

The UMass Amherst library team was eager to update our practices to better reflect the law and current publishing environment, and to better support our collections development decisions. We were also committed to maintaining good faith participation in the scholarship economy through acquisitions, copyright licensing fees, and support for open access publishing.

While the Georgetown and Ohio State process examples were invaluable in beginning our conversations, both necessitated a high degree of evaluation time per request. The UMass Amherst Libraries manage too many interlibrary loan requests to evaluate each one through a human eye, and need to ensure that decisions are made consistently year after year. While the CONTU guidelines are outdated and effectively arbitrary, they remain simple to apply (not least because CONTU is integrated into most interlibrary loan systems) and any new method had to be scalable to our volume.

In 2018, the Resource Sharing Librarian (K. Zdepski) began informal conversations with the Copyright and Information Policy Librarian (Laura Quilter) about copyright evaluation in interlibrary loan, which led to Zdepski's November 2019 proposal to convene a group to develop a new approach to copyright evaluation and payment in alignment with the U.S. Copyright Act, and to improve the connections between interlibrary loan data and acquisitions. Zdepski chaired the resulting Copyright Evaluation and Payment Task Force, charged to develop a one page policy document and a new workflow by March 2020. COVID-19 delayed the work, but by the end of summer 2020, we had a working algorithm, which Zdepski first used in fall 2020, evaluating requests from the 2019 calendar year. At the time of writing, the process has successfully been used to evaluate payments for calendar years 2019 through 2022.

Key Metrics

The Task Force was charged to "[i]nstitute a new form of copyright evaluation and payment in alignment with U.S. Code § 107 (Fair use) and U.S. Code § 108 (Reproduction by libraries and archives).", and to "[i]mprove connections between Interlibrary Loan data and acquisition processes."

Our key challenge was to find a reliably applicable method to determine when borrowing was "substituting for a subscription to" serials, the objective standard established by the Copyright Act. In determining what might substitute for a subscription, we identified a number of possible metrics including cost of subscriptions, publication frequency, and local trends.

Cost of Subscriptions

The working group considered the cost of a subscription as an obvious measure to compare with licensing costs in order to determine whether articles were substituting for a subscription. Unfortunately, this measure was not workable because we found that there is no reliable, consistent listing of subscription costs. The lack of data is likely because there really is no fixed price for subscriptions, as many publishers do not directly publish subscription cost information and instead supply quotes on request. Publishers engage in significant price discrimination, charging different rates for different campuses and different types of users. Publishers also package journal content in numerous ways that do not readily correlate to the 1970s conception of a "subscription" – current issue access, rolling embargoed access, back files, bundles of journals, etc. Cost, therefore, was not a viable measure for us to consider in "substituting for a subscription." With these factors in mind, the working group ruled out subscription costs as a potential metric for our evaluation.

Publication Frequency

The Task Force identified frequency of issue publication and number of articles published as key metrics that would significantly shift whether we felt a particular number of articles borrowed from a title was "substituting" for a subscription or not. For example, borrowing ten articles from a once-a-year journal that publishes ten articles in that single annual issue, is quite different from borrowing ten articles from a weekly journal that publishes hundreds of articles each year. Publication frequency is the factor that could vary the most, from daily to annually or biannually – a 750 fold difference – which the number of articles in issues might range from 3 to 50 or 100 at the outside, a 33 fold difference.

Publication frequency data was not available in our existing records. While catalog records often include frequency, unlike ISSN or title information, this field does not save to transaction records in our resource sharing management system. However, we were able to import the data from UlrichsWeb API, using the ISSN to connect the title with publication frequency. We were not able to ascertain the average numbers of articles per issue or volume, but determined that issue number was sufficient for a first pass, and articles per issue could be assessed manually in review.

Local Trends

The working group determined that it was important to consider local trends in requests, but did not see a way to reduce this to an algorithm. Instead, we highlighted use of each title over time, and made report data available to subject specialist librarians to better support their recommendations for subscriptions.

Implementation

This section of our paper describes the practical implementation of the CAUSeS process. We describe the algorithm used to calculate fees, the data collection workflow during the year, and the data analysis workflow at the end of the year.

Algorithm

No one single numeric measure can fully capture the nuance of copyright law, but we needed a mechanism which could be applied consistently across many requests to manage our high volume of requests. The Task Force decided to establish several objective criteria that could be implemented in a spreadsheet or with machine logic, to support consistent decisions and reserve staff time for overall review and evaluation of exceptions and edge cases. We call this algorithmic approach CAUSeS, "Copyright Assessment for Uses that Substitut(e) for Subscriptions."

For our primary measure, the Task Force focused on the ratio of requests to number of articles published. We set an initial threshold that one article for every two issues published (on average) would not substitute for a subscription. For example, if six articles were borrowed from one calendar year of a quarterly publication (a total of four issues), we would pay license fees for four of those articles. However, if six articles were borrowed from across three calendar years of that same publication (a total of twelve issues), a library would not pay license fees for any of these articles.

Under this measure, some transactions that would have had fees indicated under CONTU may not have fees indicated. At the same time, a library may sometimes pay licensing fees for articles that would not be indicated for payment under CONTU, such as in cases where we borrowed a large number of articles from a single journal published more than five years ago. Because today subscriptions often include backfiles of older content, we believe that this kind of use indicates a substitution for a subscription. This initial measure captured the large majority of titles in the first pass, both in comparison with the CONTU approach and in samples with individual analysis.

We then added a secondary measure to check requests for a particular title that were objectively high, especially if request numbers for a title were high year after year, as that might constitute subscription-like use even if our initial measure did not identify it. For example, a title which is published weekly or daily might not be recognized by the initial measure. This secondary measure helps us consider cases of publications with unusually large or small numbers of articles per issue, or per volume. The deceptively simple combination of these two measures has proven extremely effective in capturing loan requests that "substitute for subscriptions", and has also proven adept at flagging other situations that the CONTU approach did not adequately handle.

Sometimes our algorithm flagged titles for payment which turned out to have ceased publication and have no clear rightsholder at this time. As it was not possible to purchase a subscription or pay license fees, we determined that copies of these items for interlibrary loan would fall under Fair Use (17 U.S.C. 107) despite their high volume. This is in accord with CONTU, which typically only evaluates current publications due to the currency of the article publication dates evaluated.

The CAUSeS algorithm better meets the subscription substitution formula from Section 108, and Fair Use factors such as impact on publisher (representing fair use's fourth factor, "market for" the work), than CONTU does. It also allows a more in-depth review of our use of older publications, improving the data which supports collection development decisions.

Functional Workflow

At UMass Amherst, the CAUSeS process is performed annually, assessing articles successfully borrowed in the prior calendar year. The new assessment has been used to assess and pay license fees for articles borrowed through interlibrary loan in the years 2019, 2020, 2021, and 2022.

Throughout the year

Consistent ISSNs are key to accurate assessment, as we rely on ISSN as the key to count the number of requests per publication and to match them to publication frequency and request numbers from past years. Throughout the year, the IDS Logic service runs ISSN and publication year normalization on all requests; any ambiguous requests are reviewed by staff. From 2020 through 2022, an average of less than 5% of records fulfilled through interlibrary loan each year did not include an ISSN or ISBNs, and these were typically materials which do not have standard numbers, including very old journals (in public domain), or otherwise unique requests (such as materials held in an archive) which can be safely left out of the assessment.

Because CAUSeS relies on evaluation after requests have been resolved, IDS Logic is also used to bypass the Awaiting Copyright Clearance Processing queue in ILLiad. This queue is built into ILLiad as a way for Copyright Clearance Center (CCC) information to be saved if a request may need payment under CONTU guidelines. While ILLiad settings can be adjusted to use different numbers than CONTU as thresholds, it cannot use any kind of calculation such as publication frequency or be moved to a later point in the request lifecycle. In evaluating past requests, we found that even when using CONTU, saving copyright information before a request moves on to be filled can result in inaccurate or double payments when a request is supplied by ReprintsDesk or from an Open Access source.

Annual Assessment

Annually, after requests from the prior calendar year have been resolved as either supplied or not supplied, the Resource Sharing Librarian uses an SQL query to create a report of all articles supplied to the UMass Amherst community from other libraries in the prior calendar year. SQL queries can be more nuanced than an ILLiad Custom Search, can be performed using the ILLiad SQL Querier Addon, and can easily be saved for future use. This query is shown in Figure 1.

This query excludes requests placed by the Course Reserves account (Course Reserves handles their own licensing payment as needed and a library should not pay twice), requests placed by the Disability Services departmental account for their registered users, and requests with a blank ISSN field (typically less than 4% of all requests after cleanup is complete; remainder is primarily older newspaper articles, archival materials, etc).

```sql
SELECT
	CreationDate, ISSN, PhotoJournalTitle, PhotoJournalVolume, PhotoJournalIssue,
	PhotoJournalYear, Status, Department, LendingLibrary, CopyrightAlreadyPaid,
	TransactionNumber
FROM
	Transactions
JOIN Users ON (
	Transactions.Username = Users.Username
	)
LEFT JOIN LenderAddresses ON (
	Transactions.LendingLibrary = LenderAddresses.LenderString AND
	Transactions.LenderAddressNumber = LenderAddresses.AddressNumber
	)
WHERE (
	[Transactions].[CreationDate] >= convert(datetime, '2021-01-01', 121)
	AND [Transactions].[CreationDate] <= convert(datetime, '2022-01-01', 121)
	AND (isnull(CharIndex(N'Borrowing', [Transactions].[ProcessType]), 0) > 0)
	AND (isnull(CharIndex(N'Article', [Transactions].[RequestType]), 0) > 0)
	AND NOT [Transactions].[Username] IN (
		N'Reserves',
		N'DisabilityServices'
		)
	AND NOT (
		[Transactions].[ISSN] IS NULL OR LEN[Transactions].[ISSN] = 0
		)
	AND NOT (
		[Transactions].[TransactionStatus] LIKE N'Cancelled by ILL Staff'
		)
	)
```

Figure 1. An example of the SQL Query used to generate annual evaluation data

Results of the query are evaluated and further normalized, ensuring requests from the same journal are not split between e-ISSN and print-ISSN, and that requests fulfilled via ReprintsDesk, publisher purchases, or Open Access sources are accurately marked as not requiring copyright payment.

A list of unique ISSNs is generated and used to match journal information from past reports and/or to run a report through UlrichsWeb API. Where UlrichsWeb does not contain frequency information, and frequency information is not known from a prior evaluation year, publication frequency from publisher websites is added manually.

A summary sheet is created, containing the list of unique ISSNs, standardized journal titles and frequency from the UlrichsWeb report, and counts of articles borrowed and publication years borrowed from for each journal title. The unique ISSNs are also compared to a list of current journal subscriptions, to ensure that we do not pay licensing fees for something the Libraries have already subscribed to. At this point, the algorithm can now compare the number of supplied articles from a journal to the number of issues published by that journal in the publication years borrowed.

Formulas in this sheet calculate the total number of articles that should have licensing fees paid, and even provide a list of transactions to pay on – taking into account articles already paid for through other sources like ReprintsDesk or directly from publishers. At this point, orders for copyright payment can be placed through CCC, ReprintsDesk, or other sources as necessary.

Subscription decisions under $1,000 are made by subject specialist librarians, and over $1,000 are managed by the Collections Strategies Group. Because all subscription decision makers operate on their own timelines, we found that it was not functional to ask subject specialists or the Collections Strategies Group to purchase subscriptions prior to the time when interlibrary loan licensing fees for a calendar would reasonably need to be paid. Instead, interlibrary loan copyright evaluation data is made available to help support their decisions when they are ready to make them, and if/when a subscription to a journal is in place before an article from that journal would have licensing fees paid, the subscription is considered to cover the licensing fee — an aspect in which our process agrees with the original CONTU report (National Commission on New Technological Uses of Copyrighted Works (CONTU), 1978, p.55)..

Evaluation
This section describes several copyright fee assessment problems which the CAUSeS process helps address. It also provides areas for future improvement of the workflow.

Areas for Improvement
The CAUSeS process for matching data and performing calculations (currently in Google Sheets) could be improved. The formulas are replicable, but the sheet is not intuitive to outside viewers. The process needs to be more resilient for use by others, and needs to better display information for the review of collections development decision makers. When the Task Force was convened, it would have included the Collections Analysis Librarian to assist with this from the beginning, but the position was vacant at the time. The Resource Sharing Librarian is now working with the Collections Analysis Librarian (Patrick Waite) to improve this process.

There is no smooth process for associating cost and payment data with the paid transactions; either transactions must be have CCC information saved manually (which entails routing transactions back through Copyright Clearance and quickly back to Request Finished) and an invoice request submitted via ILLiad, or database update with payment information using transaction numbers as a match key must be performed. Otherwise, payment information must be maintained separately in the evaluation spreadsheets.

Thus far, book chapters have been a weakness of this algorithm. Book chapter requests that enter this process are moved to a separate sheet that shows title requests over time, to support the potential purchase of books with highly requested sections, but are not identified for case by case licensing payment. However, this state of affairs is approximately the same as when we used CONTU, as CONTU tracking integrated into library resource sharing systems typically does not cover materials with an ISBN.

Due to the budget pools and impacts from the COVID-19 pandemic dramatically changing the resource sharing environment, it is very difficult to compare CONTU and CAUSeS dollar to dollar; additionally, acquisitions budgets at the University of Massachusetts Amherst Libraries were frozen for some time following the COVID-19 shutdown, impacting our ability to purchase new subscriptions at the time.

Problems Addressed

An unanticipated benefit of shifting the interlibrary loan copyright fee assessment process was the ability to discover and address problems with our holdings identification. For example, we found that a large number of articles from the *New York Times*, which UMass Amherst subscribes to, had been borrowed from other libraries instead of being supplied locally. This led to discovery of an error in how holdings information for subscriptions only available to our own patrons had been provided to RapidILL, resulting in requests being sent automatically to other libraries instead of flagged for local fulfillment

We also discovered that we were sometimes paying copyright fees for materials that had been provided through open source alternatives (i.e., supplied through RapidOpen), or where we were literally double-paying, having paid for an article directly through ReprintsDesk or directly to the publisher, and then paying again to CCC. CAUSeS allows us to prevent this problem.

Conclusion

The CAUSeS method for assessing interlibrary loan copyright fees updates the CONTU method for the modern information market. This is still a work in progress. While the CAUSeS algorithm is strong and has been applied successfully and consistently for several years, the labor to create the dataset and process payments continues to require more time than ideal. The process also has yet to connect with collections development as closely as initially envisioned. We extend an open invitation to colleagues to discuss mechanisms to improve any point in this process.

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Declaration of interest statement
The authors report there are no competing interests to declare.

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