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Jesse Koennecke
Cornell University, jtk1@cornell.edu

Susan Marcin
Columbia University, smarcin@columbia.edu

Matthew Pavlick
Columbia University, mkp2106@columbia.edu

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The Devil Is in the Details:

Managing the Growth of Streaming Media in Library Collections

Jesse Koennecke, Director, Acquisitions and E-Resource Licensing Services, Cornell University Library

Susan Marcin, Head of Electronic Resources Management, Technologies and User Experience, Columbia University Libraries

Matthew Pavlick, Head, Monographs Acquisitions Services, Columbia University Libraries

Abstract

With the advent of streaming music and video services, patrons have grown accustomed to accessing media on their computers and mobile devices. This method of consuming media has spread into the realm of libraries and includes less-than-mainstream content not available through Netflix, Amazon, or Hulu. Some vendors have addressed this growing demand by making their video content available for streaming through subscription databases or by renting and purchasing individual titles to be hosted on a server. Streaming video content not available through databases or purchasing and renting individual titles, usually involves acquiring the DVD, encoding it and hosting the file on a local server—a very labor-intensive means to provide access. This paper examines current trends in streaming video, a detailed look at the locally encoded and hosted workflow at Columbia University Libraries, and best practices going forward.

Libraries have been recently begun exploring and expanding streaming video content for their collections. Motivations for this range from course content and training support, to entertainment and academic collection building. Streaming video allows for viewing by multiple users over a computer network, breaking away from the traditional library model of providing physical media for video content such as VHS tapes or DVDs. Library staff seeking to work with streaming video will encounter some new licensing and purchase models and will have to consider a number of workflow questions as they begin to grapple with this new content format.

Licensing Models

Streaming video is available to libraries through a wide range of licensing models. Many of these models are familiar to the library acquisitions and collection development world, though there are some aspects that may seem unique to the video streaming market. Furthermore, new acquisition models are being offered frequently by existing and emerging vendors in the market. Among the more familiar patterns are database subscriptions, collection licensing and title-by-title firm ordering. Features of streaming video that are less common to other types library resource acquisition are

local hosting of content and limited term licensing where previously libraries could purchase the content outright. Three common models help to illustrate many of the factors libraries will encounter when licensing streaming video: database subscription, third-party hosted, and locally encoded and hosted.

Subscription databases from vendors such as Alexander Street Press, Naxos, and Ambrose Video provide access to large collections of streaming video content at a relatively low cost per title. These are relatively easy for libraries to implement, with sources for title level MARC records, IP authentication, remote access, and many other features that libraries have been accustomed to dealing with in database, journal, and e-book collection subscriptions for years.

Third-party hosted streaming video consists of rental licenses with the streaming files managed on a vendor site. This model offers a wide range of options with vendors such as Kanopy, Alexander Street Press (Academic Video Store), and Swank Motion Pictures exploring and offering flexible access and purchasing models such as single title and collection licensing, demand and evidence-driven options, and volume discounts. Vendors are frequently developing new licensing options,

making this third-party hosting model seem somewhat like the wild west of library acquisitions. This model allows libraries to build very specific targeted collections, though at a higher cost per title than the subscription databases. The workflow for licensing these is much like purchasing a single e-book title or collection.

A third licensing model, *locally encoded and hosted streaming content*. This is often licensed directly with the producer or distributor whose content is not available from a hosting vendor or for which the library might be seeking special terms. Licensing these titles involves obtaining permission to encode a digital file for streaming (typically ripped from a DVD or supplied as a digital file) and to host it on a locally managed or hosted secure server to the appropriate audiences. This process is considerably more time consuming than the previously discussed acquisition models and raises a number of issues that are not typically encountered with other licenses resources. Many of these are addressed below as this model is explored in greater depth.

Locally Encoded and Hosted: Columbia University Libraries

Specific requests from faculty for streaming video content to be held in course reserves at Columbia University created a new demand that could not be addressed through subscription databases or remote hosting. To provide access to streaming content not available through databases or remote vendor hosting eventually led the Libraries to the realization that the DVD would have to be purchased, ripped, and hosted on a local server. Meetings were held in the fall of 2012 to determine policy and procedure on acquiring and processing DVD + streaming course reserve requests. Participants in the meetings included representatives from access services, collection development, subject specialists, library systems and acquisitions departments. These meetings resulted in initial draft processes and workflows. In the spring of 2013, streaming for course reserve requests was launched as a service at Columbia University Libraries.

Similar to book orders for course reserves, streaming requests for reserves are extremely time sensitive. However, unlike ordering a book to be placed on reserves, processing requests for streaming can be a complicated and drawn-out procedure. First, the Libraries have to determine ownership. Second, the streaming license must be requested, sometimes negotiated, and agreed upon. Third, the DVD must be acquired. Fourth, the DVD needs to be encoded and hosted on a secured server. The steps in this process, which involve several departments, can take a matter of minutes, or drag on for several weeks before they are resolved and the DVD is ripped and hosted. Meanwhile, faculty members and students expect the streaming content to be available for the course being taught the same semester.

At Columbia University Libraries, the course reserve streaming workflow resembles the following flowchart:

Figure 1. Streaming workflow, fall 2012.

The streaming request is submitted to the Reserves Unit by a faculty member. The Reserves Unit goes through a checklist to determine ownership and license with streaming rights:

- Check subscription databases, such as Swank and Alexander Street Press to determine if title is available.
- If the title is available through a subscription streaming database, Reserves processes the order and adds the link to the streamable content in the course reserves system.
- If the requested title is not available through one of the subscription databases, Reserves determines if the Libraries own the DVD.

- If the Libraries own the DVD, Reserves checks the Electronic Resources Management (ERM) system to determine if we have the rights to stream.
- If streaming rights are not held, Reserves submits a request to obtain streaming license to Electronic Resources acquisitions.
- If the DVD is not held in the collection, Reserves forwards the streaming request to the appropriate subject specialist along with the course information.
- Selector determines license terms and cost of DVD + streaming and submits order to E-Resources via the online E-Resources Order Form.
- E-Resources forwards DVD order to Monographs Acquisitions Services (MAS).
- MAS places order for DVD + streaming while E-Resources requests and negotiates license.
- DVD is received in MAS and routed to Cataloging with a paper "Streaming" rider attached.
- DVD is rush cataloged and routed to Technology for encoding.
- Technology routes DVD to Reserves and waits for notification that the streaming license has been signed by Collection Development.
- Reserves posts link to streaming content on course reserves server which requires authorization to access.

As it was originally constructed, the DVD + streaming workflow at Columbia Libraries was very work intensive, stretching across several departments and with many hands involved in the process. In addition to being very time-consuming, the workflow was confusing for selectors and staff. Selectors were unsure if the workflow applied to all requests for streaming media, not just course reserve requests, and the extent to which they were responsible for locating the DVD and determining if a streaming license was available. Certain selectors were also concerned

that their budgets would be used to pay for the all of the costly DVD + streaming course reserve requests, which would quickly deplete their accounts. A series of meetings with selectors, Collection Development and Technical Services resolved these issues and allayed selectors' concerns. Streaming requests were only for course reserves; selectors were expected to research the streaming request before forwarding it to E-Resources; and a separate Reserves Streaming Video fund was created and allocated to pay for streaming requests.

The DVD + streaming workflow also created confusion for staff who handled the orders in E-Resources and MAS. Since the requests includes both electronic (streaming) and physical (DVD) components, it crossed two different departments within two different divisions. The E-Resources staff, who were not used to placing orders for physical objects, were unsure if they were responsible for ordering the DVD and the streaming component, while MAS staff were confused about ordering the DVD and paying for the streaming component, which was usually handled in E-Resources. Not unlike selectors, staff in MAS were also confused as to which fund to use for payment of the DVD + streaming as electronic resources were normally paid on funds not used for books or audio-visual objects. The issue of ingesting and processing the order in two different departments was addressed by redesigning the E-Resources Order Form to automatically email the order to the two departments. This eliminated the added step of forwarding the order between departments and allowed E-Resources to begin processing the streaming license while MAS ordered and paid for the DVD + streaming. The confusion surrounding which budgetary fund to use to pay for the DVD + streaming in MAS was addressed by the creation of the Reserves Streaming Video fund by Collection Development.

The initial DVD + streaming workflow benefited greatly from streamlining aspects of it and eliminating confusion of selectors and staff in the ordering process. Acquisitions librarians in their respective departments documented the changing policy and procedure on their wiki pages and

shared with staff across various divisions within technical services. To keep selectors informed and updated on the locally encoded and hosted process at Columbia Libraries, a document describing what type of requests were appropriate for DVD + streaming orders, how to submit such an order, and what fund to use was created and posted on the Information for Selectors wiki. The steps taken to streamline the new DVD + streamlining workflow, eliminate confusion, and document and share the process at Columbia Libraries has allowed technical services librarians and staff to handle these orders with the possibility of expanding it to campus-wide requests.

Planning for Streaming

Though it all falls under the label of “streaming,” streaming materials can be of several types, and each of these types of materials will likely be handled differently by a library and present different challenges. With subscription streaming collections, collections of streaming titles are available for subscription or purchase for access on the provider’s Web site, and the vendor shares in the management of the streaming collection. Third-party hosted titles can add a layer of complexity in that these titles are generally purchased or rented/subscribed to on a title by title basis. The same or similar amounts of processing time is involved with each title, including licensing, invoicing, payment, and cataloging. Library encoded and hosted titles can add yet another layer of complexity to the management and access of streaming materials. The library will be involved in controlling access to the content on a server and in monitoring the terms of the license to remove the content when the access period has expired.

Given that there are different types of items that fall under the broad category of streaming, it can be a good idea for a library to develop a plan for streaming. If new to streaming, one good place to begin is by researching distributors and their streaming rights to get a sense of the different models that certain providers offer. There are several guides and places that such information can be found, including National Media Market’s vendor grid and resources at

<http://www.nmm.net/market-resources> (National Media Market, n.d.).

As part of a plan for streaming, a library might decide to begin by acquiring or licensing streaming materials of one type—subscription databases, hosted rental/purchase titles, locally encoded/hosted titles—then expanding into other types as budgets, staffing, and systems allow.

The following chart attempts to convey some of the variant streaming options that a library might come across and need to develop a plan for, should they choose to license such streaming titles. A vendor might host the content. A library might be expected to host the content. The access might be perpetual. The access might be for a limited term. And each of these intersects so that, for example, a library might be expected to host content for a limited or unlimited time and a vendor might do the same.

Figure 2. Streaming access options: hosting content, duration of licensed access.

Streaming Servers for Locally Encoded and Hosted Titles

If a library opts for locally encoded and hosted titles, this will require a place to put the files for users to access them. Several products and platforms are available for hosting library streaming collections, including Kaltura, ShareStream, Kanopy, Ensemble Video, Helix, Wowza, Media Amp, Avalon, and Video47. This list of hosting servers was generated from an ALCTS E-Forum titled “Streaming Media: Acquisition, Discovery, and Usage Data” (Gibson & Marcin, 2013).

An obvious criterion to look for in a streaming server is the ability to upload and store streaming

video files. Beyond this, some added features to look for in a streaming media server might include:

- The ability to track access and rights management of streaming titles so that the library can secure and control access to content.
- The ability to track titles and manage access when licenses terms expire, so the library knows to take down content with expired licenses or to relicense.
- Stable URLs to include in a library catalog or course management system.
- The ability to preserve master files that can be converted to future standard formats.
- Reporting and assessment tools to show how the content is being used, including title level usage statistics.

Tracking Locally Encoded and Hosted Streaming Titles

Tracking the renewal of multiyear licenses when access rights expire will likely be a concern, particularly with a library's locally hosted titles. With vendor-hosted titles, the information provider often provides proactive assistance in monitoring when subscriptions and access terms expire so that the library can renew titles. With library/locally-hosted titles, this burden is shifted to the library to monitor. When opting to pursue locally encoding and hosting streaming licenses, how do libraries account for the varying terms of access by title-by-title and can the media server itself or an electronic resources management system assist with this? What other practices can assist with tracking streaming titles with limited duration licenses?

Locally hosted streaming titles are often part of one-time purchases of streaming rights with a DVD (streaming + DVD), and many providers are not proactive in notifying libraries when the streaming license term has expired. Even though the DVD is a purchased item which the library then owns, the accompanying streaming rights may be of a limited duration. Common streaming

license durations can be for one year, three years, five years, or for the life of file. It is then the responsibility of the library to monitor the length of the streaming license terms and make sure that content used within the parameters of the agreement, including removing expired content from local servers or relicensing as needed. It is this added responsibility of the library to monitor the length of the streaming license terms to control access which can pose challenges.

One manual process that Columbia University Libraries has experimented with to record license duration is to include this information within bibliographic records for streaming titles in the form of suppressed notes. For example, a note might be listed as such:

- Five-years streaming; 2/22/2013 - 2/22/2018; IP access.
- Streaming for life of file; 2/26/2013 onward; encoded by Libraries.

This indicates: 1) license duration, 2) the specific dates of licensed access, 3) whether the title is IP-accessible on the provider's site or locally encoded and hosted by the libraries. This way, relevant information can be easier for various departments to locate. This is a very manual process though that is not particularly scalable to large collections and easy to lose track of as licenses are renegotiated with different terms of access.

Another process that Columbia University Libraries has experimented with to record license duration is to put access dates in an ERM along with the license. If properly set up and continually maintained when new licenses are added, and depending on what ERM a library uses, inputting license dates can trigger license alerts to email you in advance of your license expiring.

Beyond notes in an ILS and dates entered into an ERM, both of which list the useful information of access dates in a separate location from the streaming file itself, a more elegant and useful solution might be to choose a streaming server that allows access dates to be input with the title and controls user access to the content based upon the dates entered into the administrative

portion of the streaming server. This way the dates of licensed access are available at a point of

need with the encoded content and cannot be overlooked as easily.

Name Films Media Group - Digital License Agreement Films On Demand - 10/16/12-10/15/2015

Type

Vendor License URL

☐ Visible in Public Display

Vendor License URL Date Accessed

Second Vendor License URL

Local License URL <https://www1.columbia.edu/sec/cu/libraries/inside/ner/licensedata/CAU9MW.pdf>

[Local License URL Link](#)

☐ Visible in Public Display

Second Local License URL

Physical Location

Status

Reviewer

Reviewer Note

License Replaced By

License Replaces

Execution Date 10/19/2012

Start Date 10/16/2012

End Date 10/15/2015

Advance Notice In Days

License Duration 1094

License Note

Figure 3. Example license page in electronic resources management system.

MARC Records and Streaming Collections

The variant types of streaming materials, in combination with license requirements, can each present challenges in adding items into the catalog and in records management.

- **Subscription databases:** some vendors supply MARC records, though there can be an inconsistency in the quality of these MARC records, based on the vendor supplying them. Not all vendors supply records, which may then entail the need for local copy or original cataloging of items. Some subscription collections exist in ERMs for ease of management.

- **Third-party hosted:** providers may offer MARC records, but Library may have to monitor removing records when access rights expire.
- **Locally encoded/hosted:** it is highly unlikely that providers will offer MARC records. Library may have to monitor removing records when access rights expire.

In terms of some of the considerations for adding title-level records for discovery, licenses should also be reviewed to see if there are any terms restricting this. For example, is the content restricted to one course or open to all authorized users? How long can the library stream the content: 1 year, 5 years, 1 semester, perpetually? If streaming duration is limited, records management should be part of the planning.

References

- Gibson, S., & Marcin, S. (2013, October 13). *Streaming media: Acquisition, discovery, and usage data*. Retrieved from <http://www.ala.org/alctsnews/features/streaming-media-e-forum>
- National Media Market (n.d.). *Resources*. Retrieved from <http://www.nmm.net/market-resources>