Streaming Video in Academic Libraries

A White Paper

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Summary

Streaming video, which has already established a dominant position in the consumer market, presents libraries with numerous challenges. As a result, libraries have not embraced this technology as enthusiastically as the public, and this paper examines the key issues streaming video poses in relation to infrastructure, purchasing, evaluation and discoverability. The results of a survey conducted of the member institutions of the CARLI consortium provides further insight. In light of the range of issues streaming media still presents and the high probability of increasing demand, libraries have an opportunity to influence the types of products and licensing restrictions offered if they coordinate those efforts through consortia. But the window for such efforts will likely be short and libraries must begin pushing for their core needs through joint action before the ability to exercise their influence disappears.

Introduction

It is the age of online video. According to *Cisco's Visual Networking Index*, by 2017 "the gigabyte equivalent of all movies ever made will cross global IP networks every 3 minutes."[1] And yet, unlike consumers, libraries have been relatively slow to embrace streaming video content. This situation stems from the variety of challenges this technology poses for institutions that have a mandate to collect and make available a variety of content to their users. Some of these issues are not unlike those that confront individual users of streaming media – slow delivery speed or inadequate selection. Others are unique to the nature of libraries themselves as collectors and preservers of material. And ultimately some are the special purview of academic libraries in their role as branches of educational institutions.

Infrastructure presents some of the most confounding problems related to streaming video content for libraries, especially as the shift toward mobile technology accelerates.[2] Format compatibility issues as well as network and bandwidth problems present one set of problems, while providing remote access presents another albeit related one that will increase in importance as the number of users depending on mobile access rises.

Purchasing streaming video is currently carried out in a disparate marketplace, requiring libraries to navigate a wide range of options from leasing to purchase, from selecting by individual title or buying entire collections. Libraries must negotiate agreements with vendors that detail content, permissible users, any limits on use, and digitization and reproduction rights. When evaluating selections, libraries must consider factors such as viability of usage statistics, relevancy, authority, currency of material, level of treatment and probability of use.

For libraries, materials have no value unless they can be found. So discoverability is a core value. Streaming video raises specific concerns in relation to discovery, necessitating the need for clear protocols regarding the choice of whether or not to include titles in the online catalog, acquisition of MARC records, and subsequent record maintenance. But discovery also entails another less technical aspect, the strategic marketing of streaming media material.

Effective marketing was one area where various CARLI member libraries felt they needed to do more work. This was but one finding of our member survey. A key issue, mentioned by several respondents, were infrastructure problems related to playback—bandwidth problems—stuttering or freezing during playback. But additional problems related to access rights, permissions, long-term availability and use in course-management software suggest that there is room for libraries to coordinate to form a more effective bargaining arm.

Previously libraries have pushed for parity in complex political and commercial issues by using their inherent collaborative structure as an asset, building on the power of their consortia to advocate critical policy issues and bargaining with commercial ventures to gain market strength through numbers. Curiously, there has been little effort of this sort in relation to streaming video. When asked, libraries have indicated that their relations with individual vendors have been good and companies have been willing to work with them as needed. But do these positive experiences negate the need for cooperative effort, or simply conceal its value? Does this situation reinforce the likelihood of the development of a two-tier system of library haves and have-nots in a marketplace both this costly and this technologically volatile? Can academic libraries afford, literally, to let the marketplace decide, without providing input on behalf of students and faculty who may not be informed about the decisions, and is there any intrinsic value in forcing each library to undertake all of these elements for themselves?

The Committee believes that library consortia need to investigate the possibilities of cooperative purchasing for their members as a means of improving the options available to all libraries. Consortia can draw on their larger pool of expertise to best negotiate prices and licensing options that will be advantageous to all their members. By so doing, issues like contracts, preservation, Course Management System (CMS) incorporation, and permissions can be effectively (and, it is hoped, advantageously) standardized. In so doing, they will, no doubt, influence the choices that are available to libraries more generally.

In addition, the potential for establishing some method of video sharing or cross-consortial purchasing that would convert the current single library/user contract to something more in line with traditional library practice could become part of the discussion. As presently defined, streaming video contracts run counter to libraries' core value of collaborative sharing. Without input from libraries, vendors have no reason to change this practice; so in order to support this specific value; we will need to bring it to the discussion ourselves.

Infrastructure Issues

Connection speed

Streaming video requires considerably greater network speeds than textual content, such as electronic journals or books. While journals and book chapters with illustrations may have large file sizes, they are downloaded as discrete objects and may be stored in advance. Due to large file sizes, this is not practical with most videos. With streaming video, the file is only partially downloaded before playback begins,

and downloading continues in the background. In cases of slow or variable connection speed, video playback may halt while the next segment is prepared for viewing. Typically, users see a message that says "loading" or "buffering" in such cases. If a connection is particularly problematic, videos may halt several times during playback.

There are mechanisms to prevent this. Many vendors provide videos in multiple file sizes and are able to dynamically or manually match the most appropriate file size to the user's connection. However, users must still be able to match the minimum file size in order to achieve smooth playback. In many cases, the minimum version will play smoothly if the connection speed is 400 kilobits per second (kbps) or greater[1]. While most university networks are more than capable of handling such speeds in ideal conditions[2], problems may still occur. Many campuses include some buildings or classrooms that suffer from particularly poor performance, and heavy network usage can greatly reduce speeds.

File formats

While HTML has provided support for displaying images for quite some time, the same has not been true for video until recently. Video playback has typically relied on a browser plugin, such as Adobe's Flash or Apple's QuickTime. In such cases, end users must download and install a plugin that works with their browser to display the video. Flash continues to be a popular container file format for streaming video, and is used by many of the current library vendors.

However, Flash has proven problematic in recent years. Most notably, iOS devices (including the iPad and iPhone) do not include native support for Flash. Unlike a desktop browser, users are often unable to simply download a plugin for mobile browsers in order to enable the viewing of Flash content. Instead, users must often download an alternative browser, and this is a step that many simply won't take. As a result, this makes the use of Flash-based streaming video services problematic for libraries whose communities have thoroughly embraced mobile devices. Some vendors and popular video sites such as YouTube have begun to take advantage of HTML5's native support of video. HTML5, which is still in development, includes a <video> tag that is able to support multiple file formats.

These troubles with the ongoing viability of video file formats may also present a problem for libraries that purchase perpetual access to streaming resources. If libraries purchase perpetual access to videos that are delivered in a file format that later becomes unsupported, they eventually find the content unusable. While license agreements vary, most do not include language related to the conversion of file formats, and many state that the vendor may cease to provide online access, and instead supply the original files to the library.

Off-campus access and embedding

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[1] See for example, Alexander Street Press' help information at http://ativ.alexanderstreet.com/help/view/video_streaming_quality or the Films on Demand FAQ at http://digital.films.com/PortalFAQs.aspx.

[2] Of 539 academic institutions surveyed by the National Science Foundation for their Science and Engineering Indicators 2014, only one reported a connection with a maximum speed of 10 Mbps or less. http://www.nsf.gov/statistics/seind14/content/chapter-5/c05.pdf

Academic libraries often rely on a proxy server to enable off-campus access to their authorized users. Unfortunately, proxy servers do not always work well with streaming video. Proxy servers work by rewriting URLs within an HTML document so that links go through the proxy server. This works well for static content, but it may fail when a resource makes use of Flash or other streaming video players. EZproxy, for example, states that it does not support Flash and that streaming video players may hamper off-campus access[3]. As streaming video becomes more prominent, libraries may need to implement workarounds or alternative authentication methods. These could include Shibboleth or more flexible proxy servers than those currently intended for the library market, but few workable alternatives exist at this time.

These same issues may make it more difficult for librarians or faculty members to embed videos in pages. Streaming video use at academic libraries is particularly likely to be tied to a specific course. As such, it's desirable to be able to include videos in a Course Management System (CMS) or course website. In the best cases, streaming video lends itself to this better than textual resources. Because the default size for most videos is comparatively small, they may be embedded directly in a page, rather than requiring users to click through to a separate page. However, the previously mentioned problems with proxy server access may complicate this for off-campus users. Even those platforms that are compatible with library proxy servers may not always offer a stable, proxied URL through the user interface. This means that if a faculty member embeds the video on their course page, it would likely not be available to off-campus users. While stable, proxied URLs are often available through the library catalog, embed codes usually are not.

Evaluation of Streaming Video – Content

Like any other resource being considered for acquisition, streaming video products must be carefully evaluated. Institutional collection development policies serve as the basis for the evaluation with criteria carefully spelled out in detail. Many of the criteria used in evaluating streaming video are the same as for other informational formats. These include:

- Relevancy to the curriculum: For most institutions, particularly those that are not research institutions with comprehensive collecting policies, a product's relevancy to the curriculum is likely the measure of evaluation. If the work does not support or enhance the curriculum, then it is less likely to be acquired.
- Authoritativeness: The authority of the author or filmmaker and the reputation of the production company will impact the perceived quality of the product. If a collection contains what are considered to be less than top quality, then it is unlikely that it will satisfy the needs of the users.

[3] http://www.oclc.org/support/services/ezproxy/faq.en.html

- Timeliness of information: Unless building a historical collection, it is important to have works that represent current theories, modes of thinking and behavior, or ideas. Old information can do more harm than good and knowledgeable users will reject the product as a matter of course.
- Anticipated use: Chances are that if a product is being recommended by a faculty member for inclusion in his course, the anticipated use is high. It is possible that the anticipated use may be solely for entertainment. This has to be carefully weighed against the institutional collection development policy. This may be less important for a library that is collecting at a comprehensive level.
- Level of treatment: Some consideration must be given to the level of treatment of the subject. Is the product intended to serve as a general overview of a subject or is it intended to provide in depth analysis? If an institution is only providing introductory courses on a subject, then an in depth analysis of a specialized topic is unnecessary.

Other factors impact the overall evaluation of a resource, but do not necessarily impact the content. For example, the technical quality and user friendliness of the product are key factors in evaluating a resource. The content can be the best there is, but if the product is not user friendly, the chances are good that it will not be used. The same can be said for the technical quality. Cost also plays a role. Is the content worth the cost? Is this particular company the sole vendor of the product or is it available through other companies? Is the cost something that will require special funding or can the budget handle it?

Librarians make use of independent product reviews, product previews or trials, and faculty recommendations to help inform their decisions to acquire the product. Library users expect that the materials in the library collections are the best quality available. They expect that the librarians have applied the same evaluation skills to the products that they are trying to instill in their users. Anything less is unacceptable.

Purchasing Models and Concerns

Purchase methods

In terms of acquiring streaming media, there are two choices that need to be made:

1. Whether to purchase or lease content.
2. Whether to acquire a package of titles or to purchase titles individually.

Therefore, there are essentially four options to consider when acquiring streaming media

1. Purchasing individual titles.
2. Renting or subscribing to an individual title.
3. Purchasing a package or database of titles.
4. Renting or subscribing to a package or database of titles.

There are a wide variety of options or models being used by the different vendors or distributors of streaming media. For example, the models for purchasing the streaming rights for an individual title include

- Purchasing a DVD with rights included.
- Purchasing a DVD with rights for an additional charge.
- Purchasing just a file with streaming rights for local hosting.
- Purchasing the streaming rights to a video hosted on the producers'/distributors' site.

Similarly, rentals of individual titles have many of the same options with the additional option of the length of time that they can be leased. Lease or rental periods range from one day to 5 years, with practically any period in between, depending on the vendor or distributor. Most long term rental agreements run for one, three, or 5 years with short term rental arrangements typically being one week, one month, or one semester. In some cases the same content is available for either outright purchase or yearly subscription.

Overall, there are numerous variations in the specific ways that streaming media can be acquired within these four overarching models. There are also numerous methods or paths that libraries may need to pursue in acquiring the rights to stream media when the film or video is not distributed or made available through one of the more established streaming media distributors.

The additional criteria or purchase decisions that need to be made in relation to streaming media include

- Whether to accept the licensing terms and conditions.
- Determining the appropriate purchasing option when multiple options are available.
- Determining whether to rent or subscribe or purchase, and if available how long a rental period to enter into.
- Deciding whether the library or institution wants to host and stream the media locally, if this option is available, or rely on the publisher to stream the content for the institution's users.
- Whether closed captioning is available for hearing impaired faculty or students.

Obviously like all library acquisition decisions, these evaluation criteria and purchase options are not independent of each other. In some cases, cost may be the overarching factor while in others the intended use of the media may only warrant having access for a short period of time.

In terms of best practices, most libraries generally would prefer to purchase rights in perpetuity, especially for academic content. At times, however, a limited time purchase may meet the needs of the library and the faculty they serve. Usually, cost plays a major factor in the acquisition decision, either in terms of length or access, or in deciding between purchase and rental of streaming content.

Package or collections of streaming media

Purchasing or subscribing to large academic collections, like those from Alexander Street Press, to support curricula needs, holds many advantages for institutions. These packages usually provide a large amount of video content focused on particular subjects. In addition, vendors host the videos on their platform, licensing and contractual issues are negotiated and managed as a single entity, and discovery issues are typically simplified because users can quickly locate films of interest via the online catalog or vendor's site. When properly designed the vendor's platform is often an additional advantage. Most vendors' platforms are stable and make every attempt to avoid bandwidth issues. Vendors usually provide additional features such as transcripts, highlighting or bookmarking that allow faculty to direct students to specific places within a video, and provide usage data. One of additional item to consider, especially when purchasing a package or collection, is that the number of titles included in the package can change over time, primarily through the availability of new titles. Occasionally, however, titles are removed from the collection. Finally, some packages may have a predetermined title list that can be subscribed to every year or rented for multiple years at one time, i.e. a three year subscription for the titles in the package.

Packages of media provide for a relatively low cost per film or video. This pricing is also relatively stable. In terms of cost, the subscription rate is comparable with that of the specialized bibliographic databases with typical inflationary increases. These packages can often also be acquired as a one-time purchase, with the one-time cost usually being between five to seven times the yearly subscription costs. Usually these package purchases have some minimal reoccurring cost often termed maintenance, platform, or hosting fees. However, if you look at a cost per title for these packages it usually comes out to less than $20 per title with the cost per hour rate being less than $50 per hour. Using either metric, the cost is not unreasonable when considering that these collections contain hundreds of titles comprising several hundred hours of video. The cost of individual DVDs with streaming rights can be quite expensive on a per title basis. Individual purchasing of streaming rights for these types of videos, which usually include the DVD, are often several hundred dollars. The streaming rights are often the same cost as the DVD, so the cost for one documentary is usually no less than $300 and commonly in the $500 range. The drawbacks to this type of subscription arrangement are that

- Content becomes dated.
- Subscribers have no long term rights to the videos.
- Limited to no selection control in relation to the package. As a result, some of the titles may never be used or are not relevant to the instructional needs of the institution.

Like any purchase or subscription to a package of resources, there are both advantages and disadvantages that need to be considered before subscribing or purchasing streaming video collections.

Individual streaming media purchases or subscriptions

Although this review primarily concerns streaming media acquisition, at an individual title level it is difficult to separate this type of acquisition from the acquisition of other media. The purchase of instructional, educational, or topical documentaries on DVD often impact the use of media in the classroom. For example, there are several disciplines at the University of Illinois at Springfield (UIS) that regularly use media in their instruction, and subject librarians frequently purchase media, generally

DVDs, to support these courses. In some cases, the librarians purchase streaming rights at the time of the DVD purchase. In other instances, the DVD is purchased either at the request of the faculty, or proactively by librarians, with the right to stream the media being requested at a later date. This process entails getting a license in place and paying an additional fee for the streaming rights. Some vendors offer a discount for the purchase of streaming rights at the time of DVD purchase that is not available if the purchases are made separately. Other vendors have required that the library purchase a second copy of the DVD, this time paying an additional fee for streaming rights. In other situations, the rights may be unavailable, prohibitively expensive, or the rights holder may be impossible to locate.

For the most part, the acquisition of streaming rights are just that, the ability or legal authority to create a copy to stream the media for online or hybrid classes. This requires that the institution has the infrastructure to support providing media in this fashion. The institution needs to have the ability to create and host streaming media content, provide the level of security mandated by the producer's license along with any other security or monitoring requirements detailed in the license. Most licenses are vague in terms of the process or how requirements are met, only that the streaming media is restricted to the students registered in a specific course. This allows for flexibility at the institution in term of streaming formats, hosting, and authentication methods. However, it can also add additional workload for the library, instructional technology departments, or both. There are some vendors that will provide a version of the media designed for streaming or host streaming media for the institution often for an additional fee. Again, the decision to acquire an individual film or video may present a number of options making it difficult to come up with a one solution fits all answer to providing streaming media. Although the overall cost of a single item will likely be much higher per item or per hour than a package of titles, these titles are generally directly serving the curricular needs of the faculty. If only a few titles are needed, the cost can be less than the subscription or purchase price of packages of titles. This is the primary advantage of selecting individual titles for licensing or acquiring the rights for films or videos on an individual basis.

Coming up with best practices for acquiring streaming media is difficult. The myriad of purchasing/rental options almost make the acquisition of this type of material a case by case decision. And yet, the variety of acquisition models does not mean that every distributor provides numerous choices for their specific content. Some producers or distributors may not provide any alternatives at all, making the decision to lease or acquire a video a "take it or leave it" proposition.

Terms of agreement

Most of the "terms of agreement" or licenses for streaming media generally are straightforward. The one area that differs significantly from licensing other content is in the area of long term or archival rights. Streaming or digitization rights are generally written such that the library leases these rights. While the library might own the DVD of a documentary, it may only be the lessee (even of those granted in perpetuity) of the digital or streaming rights. For example, one company "grants to the Licensee a limited, non-exclusive, revocable license to use the Content (as defined below) for educational use."

When examining the license for streaming media, the license or terms of agreement usually:

1. Spell out or define the content included – video, audio, text, graphics, and/or interactive media.
2. Define the Authorized users – this usually is not an issue as these are used for classes, so students only is acceptable but broader is better.
3. Provide Limits on Use – Should allow for distance learning programs, offsite use, online courses and instruction.
4. List if there are any limits on additional digitization, alteration, duplication, or reproduction.

Other items to look for or include

1. Time period for subscriptions, limited (set time period) or perpetual for purchases.
2. Access restrictions or security requirements. Are there stipulations on restricting non users? Are passwords or other authentication systems required? Are there provisions prohibiting downloading or saving of files and/or redistributing?
3. Public Performance rights – are these allowed?
4. Allowed formats of digitization, does it specify particular formats? Can you change or convert to a different streaming or digital format?
5. What are the restrictions on use? Derivative works? Archiving? Can you only use a portion of the work or do you need to use the entire work?
6. Attribution – is there a requirement to provide credit and display copyright notices?

Other considerations

Sometimes determining who holds the copyright to a film or video or obtaining permission to stream it may prove impossible. Alternative strategies for making the content can be considered. The first is determining if the use falls within the fair use guidelines of current copyright law and or meets the requirements of the Technology, Education, and Copyright Harmonization (TEACH) Act. The second strategy is to make students responsible for acquiring or viewing the media content through commercial streaming services such as Netflix, Hulu Plus, Amazon, or other, similar services.

Copyright and Fair Use – The library has on occasion been able to stream media under the Fair Use provisions of copyright law using the guidelines set forth in the recent "ACRL Code of Best Practice in Fair Use." The emphasis on the transformation or "transformative nature" of the use of some media has been the basis for determining that the streaming use of some digital media is acceptable under the Fair Use exemptions within existing copyright law. Likewise, the use of streaming media is often evaluated to determine if the use meets the guidelines and provisions set forth for the use of media in the classroom within the TEACH Act. Looking for alternatives to licensing rights are usually undertaken when there is not a source (distributor or vendor) available from whom to acquire the rights. Often, although a fair use case could have be made, purchasing streaming rights is simple if not inexpensive, so deciding to do so avoids risk and ensure compliance with copyright law.

Commercial Streaming Services – Sometimes a library is unable to acquire the streaming rights for all of the media requested by faculty – often this media consists of major motion pictures or TV series. For example at UIS, faculty members have made "viewing lists" similar to "reading lists" in literature courses as part of their course requirements. Students understand it is their responsibility to obtain and view the

required content. The library staff or faculty members generally check on the availability of these videos from personal streaming services, such as Netflix, to ensure that they are accessible via at least one service. Most of these movies or shows are also made available from the library's physical media collection or reserve services. In this manner, on-campus access is provided. Looking at this strictly from a cost perspective, the cost incurred by students in terms of utilizing a service like Netflix ($8.00 a month) or Amazon Instant Video (movie rentals from $.99 to $3.99 per film) is reasonable when compared to the cost of textbooks or lab fees. If cost is an issue, the library's physical collection is available. As these types of materials are generally popular in nature, they would often also be available from public libraries or other sources.

Vendors – popular or frequently used vendors

1. Alexander Street Press
2. Bullfrog Films
3. Digital Campus - Swank
4. Films for the Humanities and Social Sciences
5. Insight Media
6. Media Education Foundation
7. New Day Digital
8. Women Make Movies
9. Docuseek2

Evaluation of Streaming Video – Use

As stewards of institutional funds, libraries must monitor how those funds are being spent and if acquisitions are being used. This is particularly true if a product is subscription-based. Reviews should be done on a set schedule to ensure that the library is not wasting funds on a product that is not needed. There are two main methods of evaluating streaming video or any library resource: usage statistics and user feedback. These should be used in tandem.

Vendors should provide COUNTER-compliant usage statistics for their products. While there are always problems with how statistics are derived and interpreted, COUNTER-compliant usage statistics are the best option available right now for comparing data across platforms. It is important to note that usage statistics can be skewed by federated search or discovery systems. Searches may be executed in a resource, but the user may never actually take the time to review the results from each resource. While these usage statistics illustrate the number of times a site has been searched, they do not record whether or not the user accessed the titles or the users' impressions of the quality of the product.

User feedback of the products is a good indication of the product's usefulness. Formal gathering of feedback in the form of surveys or direct solicitation can provide a good source of quantitative data and can be used to track product interest and usefulness as well as trends. Informal feedback in the form of unsolicited responses from users also can be very valuable. Users are typically responding to their

interaction with the product in the moment. This qualitative data can be passed on to the vendor to help improve the product, turned into a teachable moment for the user, and recorded for evaluation purposes.

Even when looking at usage statistics and user feedback, it is crucial to keep in mind that there are a number of outside factors that can influence a product's use: number and type of access points, community marketing, and perception versus the reality of need. All of these factors need to be taken into consideration when evaluating a streaming video, or any other informational product.

Discoverability Issues

As libraries build larger and larger collections of streaming videos, the issue of discoverability becomes more important. Libraries have spent large amounts of money on these resources. They want them to be used and easily accessible. Libraries should consider several factors when making decisions about discoverability, in addition to the ownership vs. licensing factors previously discussed, availability of MARC records, web-scale Discovery services, and database maintenance issues.

MARC records

An easy way of enhancing discoverability of streaming videos is to add MARC records for each video title to your catalog. These records would then be searchable in your local catalog instance and shared universal catalogs. There are several issues to think about when considering adding MARC records.

1. **Availability of vendor supplied record.** Many vendors will supply MARC records for their streaming video titles. Many records are free, but a few vendors will charge an institution for each record. A charge of $.35 per record, for example, may add up quickly when purchasing large collections. Some vendors do not supply any records or provide only metadata. In these cases videos would have to be individually cataloged, which can be time prohibitive. Whether or not a vendor supplies MARC records or if there is a charge for records is often an important factor in the decision to purchase and/or license streaming video.
2. **Have the videos been purchased or licensed?** When purchasing even large collections of streaming videos there is little doubt that libraries would want to add records for each title. Bulk loading of vendor supplied records is a pretty straight forward process for I-Share libraries. When licensing content libraries may wish to consider whether or not to add the records. Licensed titles are often added and removed from streaming video packages. Recently all PBS titles were removed from one vendor's site. Individual titles are added or removed from many of these collections with some regularity. In this environment, libraries need to have processes in place to add and remove titles as necessary, or library users will be confronted with broken links and incomplete searches.

Database maintenance

In many cases loading MARC records into the local catalog is the best way to make streaming videos discoverable. If the videos are not indexed or federated in a discovery service, it is the only way to make them searchable. (In this case, libraries will likely decide to load records whether or not they are licensed.) Things to consider when loading records include:

- The quality of the record. For example many records do not contain call numbers. Other important fields to look for are 010, 020, and 035 (this field contains the OCLC or a vendor supplied control number which is helpful in de-duping the universal catalogs).
- When licensing videos, some titles may be dropped from the subscription (and new ones added). How does the vendor alert you to these changes?
- What process do you have to mass delete records that have been removed (or to withdraw the records for a streaming video collection should you stop subscribing). Using a unique location or a distinct operator ID is useful in identifying deleted records. A macro or Gary Strawn's Location changer could be of use in the removal process.
- Developing an overall workflow is essential in keeping your records up-to-date.

Web-scale discovery

If your library has a web scale discovery service such as Summon, Primo, or EBSCO Discovery, your streaming videos may be discoverable there. Discovery tools work by indexing most of the content from library database subscriptions into a single searchable index, with the content of the local OPAC included as well. Some discovery services include federated searches for content not included in the index. Streaming videos may be included in a discovery tool in two ways. In the first case, titles for which MARC records were added to the local catalog will be loaded into the discovery index as part your normal update process with your discovery tool vendor. In the second case, streaming videos may be available in your discovery service, because that content is already tracked and indexed by the discovery service or federated. If scenario two is true, and your streaming video titles are already discoverable, you may decide that loading MARC records for these titles into your catalog is not worth the effort, especially if the content is licensed rather than owned.

Marketing

In addition to technical issues, marketing, both internal and external are important to enhanced discoverability. When purchasing or leasing streaming video collections, libraries can increase usage with a comprehensive marketing plan. As with any new format, streaming video allows libraries an opportunity to reach new audiences and maintain relevance with established users. Students and faculty are the main targets for these marketing efforts, but will most likely need to be contacted differently. Students can be reached through the library's website, library instruction, printed promotional materials, and interaction at the reference desk. Faculty may be better reached through one-on-one interaction with librarians, especially library liaisons to departments, and via email. Demonstrating functionality, such as linking to streaming video in course management sites like *BlackBoard* or *Libguides* are particularly important when demonstrating the value of streaming video.

Finally, appropriate library faculty and staff should be fully trained to market and answer questions about the library's streaming video options effectively.

Results of a Survey on Streaming Video among CARLI Member Libraries

Methodology

To better understand the needs and concerns of its members, the Commercial Products Committee conducted a survey of the CARLI libraries. CARLI, the Consortium of Academic and Research Libraries in Illinois, is made up of 145 institutions serving 94% of Illinois higher education students, faculty, and staff[4]. CARLI offers a variety of services to members, including e-resource brokering. The committee designed a seventeen question online survey that was distributed to CARLI libraries via the E-Resources Contacts email list, a listserv used to share information about CARLI e-resources. The survey remained open for 2 weeks, from December 5 – December 19. Of the 145 CARLI libraries, 56 libraries responded, with 8 libraries submitting 2 responses.

Results

The first question asked was if the library participated in the CARLI Alexander Street Press streaming video package purchased for Governing Member libraries by CARLI in 2013. Of the responding libraries, 59 (89.4%) libraries were participating in the package. Of the six libraries that were not participating, two (33.3%) gave budgetary issues as a reason, two (33.3%) mentioned IT or bandwidth issues, and three (50%) said that streaming video had not been requested by their faculty. Other reasons cited were a lack of information about the offer and that the library was not a Governing member and therefore not eligible to participate.

When asked if the library licensed or purchased streaming video content other than the Alexander Street Press content offered by CARLI, the results were divided almost equally with 31 libraries (48.4%) responding that they did and 33 (51.6%) responding that they did not. Of the libraries that did not, 19 (61.3%) cited budgetary issues as the reason, 15 (48.4%) indicated that their faculty had not expressed an interest in streaming video, and 8 (25.8%) listed IT/bandwidth issues as the reasons for not purchasing additional content. Additional reasons given included the need to acquire Public Performance Rights to show videos in the classrooms of for-profit institutions, difficulty finding a provider that provided content that matched the needs of faculty, the desire to avoid committing to additional subscriptions, the complications of licensing streaming video, and the lack of post-cancellation rights.

Of the libraries that do purchase or license additional content, 17 (65.4%) subscribe to content, 2 (7.7%) purchase content, 7 (26.9%) do a mix of both subscription and purchasing of content. Most of these

[4] For a complete list of CARLI member institutions, see http://www.carli.illinois.edu/membership/mem-libs.

libraries have been doing so for five years or less, with one notable exception of a library that reported "in the health sciences, it may be now as much as ten years."

When asked which vendors they worked with, 19 (79.2%) had purchased additional Alexander Street Press collections, 13 (54.2%) worked with Films on Demand, and 5 (20.8%) worked with Swank. Other vendors mentioned included MDConsult, New Day Digital, Films for the Humanities, StatRef!, Ambrose Video, Acland Anatomy – Wolterskluwer, APA, ICE (International Clinical Educators), INTELCOM, and Lynda.com. Libraries also mentioned that products from McGraw-Hill, Lippincott, Williams & Wilkins, California Newsreel, Credo Reference, and Access Science provided access to some streaming video content. One library stated "We sometimes work with independent film – or video – makers to provide time-limited, online access to individual titles for individual researchers."

Responses to the question of how many streaming videos libraries had in their collections were quite varied and difficult to compare. Some responded in terms of the number of collections of streaming videos they provided access to, while others gave the total number of streaming videos to which they had access. In many cases, libraries that gave a count of the total number of videos gave only rough estimates, like hundreds, thousands, or more than 10,000. The highest number reported was "roughly 21,755." Most of the libraries (12 or 48%) purchased their streaming videos only as collections; only 3 (12%) purchased titles only individually, and the remaining 40% (10) reported purchasing a mix of collections and individual titles. Of those that purchased a mix of collections and individual titles, almost all estimated that 90% or more of their titles were from collections, although one library indicated that their collection of streaming videos was split evenly between those in collections and those purchased individually.

When asked about issues with licensing and purchasing agreements, 11 out of 21 respondents reported that they had not experienced any problems or were satisfied with their agreements. Of the libraries that reported issues, maintaining access was a common concern, with five libraries reporting some type of access concern. Among those concerns were: instances where distributors lost the rights for some titles, resulting in videos no longer being available; vague language about perpetual access in license agreements; tracking when to renew limited-term licenses for content; and issues with vendor site stability. Hosting content was also a concern for a few libraries, as some libraries wanted to host content but did not have server space on which to store content or did not have adequate space to meet demands. One library purchased a DVD with streaming rights, but discovered they had to rip and host the content themselves because the vendor didn't provide a streaming option. The price and/or complexity of licensing streaming videos were also problems reported by respondents. In addition, one library reported that the license agreement required the content to be distributed through the learning management system, which made it more difficult for faculty to use.

Libraries made their streaming videos discoverable in several ways. Twenty-three libraries (92%) reported that they provided links to streaming video content through the library web page and 19 libraries (76%) made streaming videos discoverable through their library catalog. Other methods included links in learning management systems (3 libraries), emails and other outreach to faculty (5 libraries), LibGuides (2 libraries), and the library's discovery system (1 library).

As for evaluating streaming video collections, vendors seem to be providing usage statistics for their products. Twenty-one libraries reported that they had access to usage statistics; three reported that some vendors provided them while others did not, and no one reported not being able to access any. Though usage statistics are widely available, evaluation of streaming video collections is still under development at many libraries. While nine libraries mentioned gathering and looking at usage statistics for their streaming videos, seven libraries mentioned that they had done little to no evaluation of their collections, though in some cases the libraries indicated that their collections were too new to have sufficient data to evaluate. Faculty and student feedback was also a popular method for evaluation, mentioned by eight libraries, with four libraries specifically mentioning that they received positive feedback, though two libraries received reports of bandwidth issues causing difficulty for patrons trying to access the videos. Two libraries mentioned that they wanted to do more outreach and marketing related to their collections before evaluating them. Two libraries reported that bandwidth issues were hindering the usage of their collections, reporting, for example, that "at peak times, faculty members are hesitant to use streaming in the classroom because the connection is sometimes slow."

The survey also looked at alternatives to library licensed streaming video content. Twenty-five libraries reported that their faculty encouraged students to use alternative options, and 25 libraries said their faculty did not. Of the libraries that reported alternative sources being used, 23 (92%) reported YouTube, 12 (48%) reported Open Access sources, such as Internet Archive, 11 (44%) reported textbook-linked videos, 8 (32%) reported NetFlix, and 5 (20%) reported Amazon Prime as sources used by faculty. Other sources mentioned included TED, MOOCs, items from faculty member's personal collections, and videos found in Encyclopedia Britannica and Credo Reference.

When asked if there were specific issues about licensing or using streaming videos, 26 libraries (49.1%) reported having none, while 27 (50.9%) said that they did. The concerns covered a number of areas. Of those, seven mentioned bandwidth as a concern. In addition, three libraries mentioned issues with slow or choppy playback, but did not cite bandwidth as the reason. Six libraries mentioned concerns about long-term access, archival rights, or content being removed from collections, especially in cases when there may not be an alternative source for the video. Three mentioned difficulties linking to content in their learning management system, stating that faculty were not aware of the procedure or that it was difficult for them to learn. Six libraries mentioned issues securing the rights they needed, which included things like Public Performance Rights, rights for classroom use, rights for use for distance education, or rights for use on multiple campuses. Three libraries mentioned concerns about copyright and fair use. For example, one library had to purchase a number of videos with streaming rights after discovering that their faculty and IT department were uploading content to the CMS in violation of copyright.

The final section of the survey asked about converting physical discs to streaming. Only ten libraries (18.2%) reported that they had converted physical discs, while 45 (81.8%) said they had not. When asked about managing the rights, five reported securing them from the vendor, two reported using guidelines related to the TEACH Act and Fair Use to determine what could be converted and how it would be made available, and one only converted out-of-copyright material.

The survey shows that while most CARLI libraries provide access to some streaming video content; it is still an emerging area. Access was one of the biggest concerns expressed by libraries, and it broadly encompassed two issues. The first was related to perpetual access to content, particularly content requested by faculty for use in the classroom. Libraries also expressed concern about difficulty embedding content in course management systems, and problems providing off-campus access. Libraries are still developing methods to market and evaluate streaming video content. Many libraries collect usage statistics, but either their collections are too new to have meaningful data or they haven't yet developed a method to evaluate their content. Though best practices for acquiring and managing streaming video are developing, they still need more time to fully mature as this area of library collections continues to grow.

Conclusion

Our member survey indicates that academic libraries are clearly purchasing and licensing streaming video and that for those that license, the majority license only entire collections. Members expressed a range of access concerns, including limited-license contracts. They had identified copyright and infrastructure issues as well. In view of these shared concerns, CARLI saw this as an opportunity to offer both guidance and a recommendation of best practices.

Streaming video seems destined to play an increasing and necessarily larger role in academic library collection development. The CARLI Commercial Products Committee believes that a brief window exists in which libraries have an opportunity to contribute to and potentially control the direction this development takes. But to do so, we must act collectively, through consortia and professional organizations, to determine our priorities and then to present those priorities to vendors. In the end, this will enable vendors to more accurately meet the needs of their library customers, thus offering a savings to them, while at the same time providing us with products and contracts that meet both our needs and concerns.

Such unified action will also enable us to make a case for innovative options that would allow our streaming acquisitions to fit more completely into the library sharing model. In order to achieve this end in particular, collective action will be required, because only by showing that this is a demand shared by the library community as a whole will we be able to demonstrate the economic value for content providers to design products and licenses for this as yet unmet need.