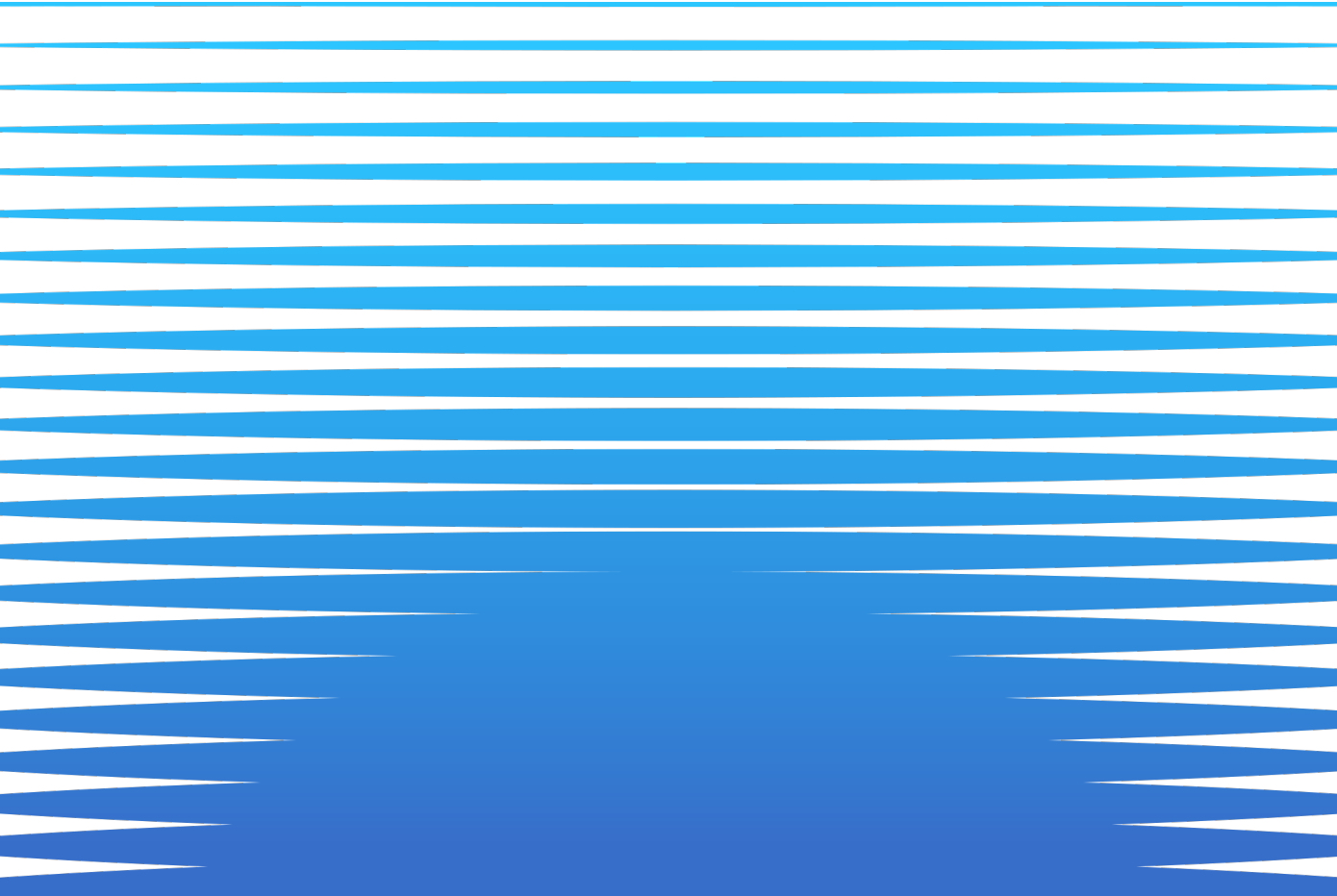


Teaching with Streaming Video

Understanding Instructional Practices, Challenges, and Support Needs

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Table of Contents

Introduction	3
Key findings	5
Methods	6
How and why instructors use streaming video	6
Challenges	17
Better supporting faculty	23
Recommendations	28
Appendix 1: Teams	30
Appendix 2: Methodology	32
Appendix 3: Semi-Structured Interview Guide	34

Introduction

Video has been used as a popular learning resource in classrooms for over three decades. Since its emergence, instructors and researchers have embraced video as a communicative form with the potential to enhance student learning in myriad ways. By offering audiovisual stimuli and emotional connection, video opens pathways for students to engage with topics from multiple angles. Indeed, studies have repeatedly demonstrated that due to these multi-sensorial learning processes, video can increase student interaction with, interest in, and cognition of the topic.¹

Streaming video, which has become the predominant format for instructional video over the past ten years, brings added pedagogical benefits that go beyond those offered by physical video formats.² As researchers have pointed out, the change in format, from DVD or VHS to on-demand streaming, together with rapid advancements in video technologies, software, and hardware, has brought increased flexibility and convenience in both the curricular applications of video and in the distribution of learning materials. With streaming video, course content can be accessed at any time and place, and clips can be quickly integrated into lectures for multi-modal content delivery, making learning more accessible by diversifying classroom formats and engaging diverse learning styles.³ Instructors across disciplines and institutions have integrated streaming video as a staple in their teaching materials, often relying on it as a cornerstone for in-person, hybrid, and fully online courses.⁴

However, streaming video, like its physical predecessors, is not inherently pedagogically beneficial. As researchers of education technology have long reminded us, “merely introducing technology into the educational process is not enough to improve student learning.”⁵ How

¹ As discussed in: Michael Carmichael, Abigail-Kate Reid, and Jeffrey D. Karpicke, “Assessing the Impact of Educational Video on Student Engagement, Critical Thinking and Learning,” *Sage Publishing*, 2018, <https://us.sagepub.com/sites/default/files/hevideolearning.pdf>; Michael Noetel, Shantell Griffith, Oscar Delaney, Taren Sanders, Philip Parker, Borja del Pozo Cruz, and Chris Lonsdale, “Video Improves Learning in Higher Education: A Systematic Review,” *Review of Educational Research* 91, no. 2 (2021): 204–36, <https://doi.org/10.3102/0034654321990713>; Zac Woolfitt, “The Effective Use of Video in Higher Education,” Academia.edu, 24 February 2016, https://www.academia.edu/22387499/The_effective_use_of_video_in_higher_education.

² Taralynn Hartsell and Steve Chi-Yin Yuen, “Video Streaming in Online Learning,” *AACE Review (formerly AACE Journal)* 14, no. 1 (January 2006), <https://www.learntechlib.org/primary/p/6152/>; Brent R. Stockwell et al., “Blended Learning Improves Science Education,” *Cell* 162, no. 5 (2015): pp. 933-936, <https://doi.org/10.1016/j.cell.2015.08.009>.

³ Alan D Greenberg and Jan Zanetis, “The Impact of Broadcast and Streaming Video in Education,” Commissioned by Cisco Systems Inc. to Wainhouse Research, LCC, 2012, https://www.cisco.com/c/dam/en_us/solutions/industries/docs/education/ciscovideowp.pdf; Zac Woolfitt, “The Effective Use of Video in Higher Education,” Academia.edu, 24 February 24 2016, https://www.academia.edu/22387499/The_effective_use_of_video_in_higher_education; Ahmed Mohamed Fahmy Yousef, Mohamed Amine Chatti, and Ulrik Schroeder, “The State of Video-Based Learning: A Review and Future Perspectives,” *International Journal on Advances in Life Sciences* 6 nos. 3 & 4 (2014), http://www.iariajournals.org/life_sciences/lifsci_v6_n34_2014_paged.pdf.

⁴ Deg Farrelly and Jane Hutchison, “ATG Special Report: Academic Library Streaming Video: Key Findings from the National Survey,” *Against the Grain* 26, no. 5 (January 2014), <https://doi.org/10.7771/2380-176x.6852>; Jane Hutchison and Deg Farrelly, “Academic Library Streaming Video Revisited,” ALA Annual Conference, Orlando, Florida, (26 June 26 2016), <https://keep.lib.asu.edu/items/357>.

⁵ Punya Mishra and Matthew J. Koehler, “Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge,” *Teachers College Record: The Voice of Scholarship in Education* 108, no. 6 (2006): 1017–54, <https://doi.org/10.1111/j.1467-9620.2006.00684.x>; Hsueh-Hua Chuang and Marcia Harmon Rosenbusch, “Use of Digital Video Technology in an Elementary School Foreign Language Methods Course,” *British Journal of Educational Technology* 36, no. 5 (2005): 869–80,

instructors use streaming video determines its pedagogical success, and instructors need to invest significant intellectual time and energy into developing effective teaching strategies for using streaming video synergistically with other teaching resources. To best leverage the potential for streaming video to enhance student learning, faculty must make deliberate choices about which content to use, how much content to use, and how to present it. Recent studies have demonstrated that effectively integrating streaming video into undergraduate instruction requires coordination of technological, curricular, conceptual, and infrastructural elements.⁶

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This kind of coordination, however, is rarely more than a theoretical ideal. The transitory nature of streaming requires constant management and upkeep from librarians, and coordinating instructor needs with library services and existing technological capabilities can be marred by confusion and misunderstanding.⁷ Amid the ever-changing ecosystem of streaming video, instructors are often overwhelmed and trying to learn new skills on the fly. Discovery is challenging due to a glut of frequently changing choices, and library streaming services and subscriptions are difficult to navigate, leading to considerable challenges for instructors as they juggle content discovery and course planning. In addition, IT problems can derail instructors in the middle of a lecture, and questions around copyright and fair use, especially when using YouTube (perhaps the most widely used service among instructors), can create barriers for teaching.

Academic libraries, for their part, also face significant challenges managing streaming subscriptions and meeting user demands.⁸ Librarians often have to grapple with competing priorities, balancing streaming and physical acquisitions within the constraints of limited materials budgets. For example, streaming fees often come out of budgets for DVDs and Blu-Ray

<https://doi.org/10.1111/j.1467-8535.2005.00509.x>; Richard F. Schmid et al., "The Effects of Technology Use in Postsecondary Education: A Meta-Analysis of Classroom Applications," *Computers & Education* 72 (2014): pp. 271-291, <https://doi.org/10.1016/j.compedu.2013.11.002>.

⁶As discussed in Cynthia J. Brame, "Effective Educational Videos: Principles and Guidelines for Maximizing Student Learning from Video Content," *CBE—Life Sciences Education* 15, no. 4 (2016), <https://doi.org/10.1187/cbe.16-03-0125>.

⁷Jian Wang and Elsa Loftis, "The Library Has Infinite Streaming Content, but Are Users Infinitely Content? The Library Catalog vs. Vendor Platform Discovery," *Journal of Electronic Resources Librarianship* 32, no. 2 (January 2020): pp. 71-86, <https://doi.org/10.1080/1941126x.2020.1739818>; Gisele Tanasse, "Implementing and Managing Streaming Media Services in Academic Libraries," *ACRL/Choice*, 2021, https://www.choice360.org/wp-content/uploads/2021/10/Choice_Implementing_and_Managing_Streaming_Media_Services_in_Academic_Libraries_lo_res_10072_1.pdf.

⁸Randall A. Lowe et al., "Managing Streaming Video: The Experiences of Six Academic Libraries," *Journal of Electronic Resources Librarianship* 32, no. 2 (January 2020): pp. 119-126, <https://doi.org/10.1080/1941126x.2020.1739831>; Jennifer A. Dixon, "The Academic Mainstream: Streaming Video," *Library Journal*, 7 September 2017, <https://www.libraryjournal.com/story/academic-mainstream-streaming-video>; Andrea Rodgers, "Once upon a Time in Streaming Video: A Community College's Adventure with Kanopy's PDA Model," *College & Research Libraries News* 80, no. 9 (March 2019): p. 498, <https://doi.org/10.5860/crln.80.8.498>; Jennifer Ferguson and Annie Erdmann, "Streaming Video in Academic Libraries," *American Libraries Magazine*, 24 April 2018, <https://americanlibrariesmagazine.org/2016/09/21/streaming-video-academic-libraries/>.

discs, yet DVDs and Blu-Rays are often of higher quality, last longer than most streaming licenses, and are more reliable sources for international and independent content.⁹ Perpetual licensing of streaming content is often not possible, and subscription models quickly become financially unsustainable due to precipitous rises in costs. Finally, an overall lack of consistent metadata for streaming titles also makes it difficult for librarians to solve discoverability challenges.

Within this context, Ithaka S+R launched a project in collaboration with a cohort of libraries to identify challenges and develop strategies for streaming media acquisitions. We published the findings from the first part of this project—a comprehensive national survey that tracked the streaming media strategies libraries are adopting and the challenges they are facing—in June, 2022.¹⁰ This second report draws on a qualitative study of faculty practices and support needs with streaming video. To help synchronize library services with patron needs, the report also examines instructional teaching practices with streaming content. Understanding these practices can guide libraries to make strategic acquisitions and ensure that their licensing and services are truly aligned to faculty needs.

Key findings

- Instructors value streaming video when it has the ability to meaningfully reinforce their course content, introduce diverse perspectives and narratives, and promote student engagement and learning.
- Instructors from all disciplines draw on many genres of video for classroom use. Most often, instructors prefer using short videos and clips in synchronous classes over feature length films.
- Poor access to international and independent content, especially content created by people from marginalized groups, limits choices for many instructors, particularly those teaching film, performing arts, foreign languages, and area studies.
- YouTube is one of the most common sources of videos used in undergraduate classrooms. Many instructors outside of the arts and humanities make little use of library subscriptions.
- Keeping costs low for students is a priority. Few instructors feel comfortable asking students to pay even nominal costs to access video material.
- Discovery challenges, constant changes in the selection of content available on streaming services, and technical challenges are common barriers encountered by faculty.

⁹ Chris Cagle, “Kanopy: Not Just like Netflix, and Not Free,” *Film Quarterly*, 21 May 2019, <https://filmquarterly.org/2019/05/03/kanopy-not-just-like-netflix-and-not-free/>.

¹⁰ Danielle Cooper, Dylan Ruediger and Makala Skinner, “Streaming Media Licensing and Purchasing Practices at Academic Libraries Survey Results,” Ithaka S+R, 9 June 2022 <https://doi.org/10.18665/sr.316793>.

Methods

To conduct this study, Ithaka S+R assembled a cohort of 24 academic institutions in the US, Canada, and Germany that were interested in evaluating the landscape of streaming media licensing alongside an in-depth analysis of user needs at their institutions. (For a list of participating institutions, see Appendix 1). Ithaka S+R developed a set of interview questions for faculty members about their experiences and support needs for streaming media and trained one to four representatives from most of the cohort libraries to conduct the interviews. Two universities chose to hire Ithaka S+R to conduct interviews with faculty on their behalf. In these cases, the universities were responsible for recruiting participants and Ithaka S+R fielded the interviews. Combined, the cohort representatives and Ithaka S+R conducted interviews with between four to 15 faculty members at each institution for a total of 244. The interviewees represent a wide range of career stages and disciplines. Ithaka S+R specializes in this cohort-based approach to research, having developed it over time to examine a wide range of topics. “What’s the Big Deal? How Researchers Are Navigating Changes to Journal Access,” “Big Data Infrastructure at the Crossroads: Support Needs and Challenges for Universities,” and “Fostering Data Literacy: Teaching with Quantitative Data in the Social Sciences” are some recent examples of Ithaka S+R projects using the same cohort-based approach to research.¹¹ A detailed description of the project methodology can be found in Appendix 2.

How and why instructors use streaming video

The rapid increase of streaming video content significantly changed how instructors use video in the classroom and the frequency with which instructors use video as a teaching tool. This is particularly true in the aftermath of pandemic related school closures when faculty hastily assembled streaming resources for online teaching.¹² Yet, while interviewees across disciplines have incorporated more streaming video into their teaching since the start of the pandemic, many are also wary of streaming’s rapid ascendancy.

All interviewees reported using streaming video as a teaching tool, but there is wide variation in the video genres, platforms, and instructional designs faculty use. These differences cleave loosely along disciplinary lines: faculty in STEM, nursing, and behavioral sciences rely largely on content from YouTube while faculty in the arts and humanities are less able to do so. Perhaps as a result, arts and humanities faculty, particularly in film and media studies and foreign languages, are among the heaviest users of library services. Across disciplines, instructors

¹¹ Danielle Miriam Cooper and Oya Y. Rieger, “What’s the Big Deal? How Researchers Are Navigating Changes to Journal Access,” Ithaka S+R, 22 June 2021, <https://doi.org/10.18665/sr.315570>; Dylan Ruediger et al., “Big Data Infrastructure at the Crossroads: Support Needs and Challenges for Universities,” Ithaka S+R, 1 December 2021, <https://doi.org/10.18665/sr.316121>; Dylan Ruediger, Danielle Miriam Cooper, et al., “Fostering Data Literacy: Teaching with Quantitative Data in the Social Sciences,” Ithaka S+R, 27 September 2022, <https://doi.org/10.18665/sr.317506>.

¹² In addition to this being true among our sample, recent studies have documented changes in the type and frequency of use of streaming video. See: Tim Tully, Linda Salem Salem, and Wil Weston, “Impact of the Pandemic on Streaming Media Adoption at SDSU: Streaming in the Time of Covid,” *VideoTrust*, 20 June 2022, <https://www.videotrust.org/stream-magazine/vol-01/impact-of-the-pandemic-on-streaming-media-adoption-at-sdsu-streaming-in-the-time-of-covid>.

described how their teaching practices change frequently in response to shifts in the larger streaming video landscape.

Faculty in STEM, nursing, and behavioral sciences rely largely on content from YouTube while faculty in the arts and humanities are less able to do so.

The pedagogical priorities for using video, however, were largely unvarying and intersected at many points across disciplinary lines. Consistent with findings from other studies that have examined instructional practices with streaming video, we found interviewees' core pedagogical reasons for teaching with video are to illustrate and reinforce course content, diversify teaching modalities, promote cultural and linguistic understanding, introduce a range of perspectives and expertise, and—in certain fields—teach disciplinary literacy.¹³

Illustrate and reinforce course concepts

Instructors value video for its ability to frame content and context quickly, which makes it a useful tool for illustrating and reinforcing class concepts. “They’re precise, they don't wander. It’s very direct information and it's well explained in the context of whatever is going on,” an instructor of nursing explained about using instructional videos. “So it actually saves us time because it's one thing to read it, but then to see it visually as they draw arrows explaining things, it's just yet another way to reinforce what they've already done.” Echoing this, a historian noted that video allows them “to convey material relatively quickly in the context of the class. A lecture or a discussion might take me 20, 25 minutes if I were to try to sort of just go step by step through the process.”

Faculty build video into their curriculum to work in tandem with other teaching modalities and reinforce course themes or arguments. As an instructor of ethnic studies described, they often provide a basic guide for students on what to look for in the video: “My intention is always to reinforce central themes from the course, to reinforce the learning outcomes that I’ve designed for either the course writ large or perhaps for that day. So I always make sure to explain to students why we are watching this, [and] what they should be looking for.” The instructor continued by explaining that ensuring students are able to relate the video back to course themes helps lay a strong foundation for robust student participation: “I’m kind of prepping them for the kind of questions that they can expect to hear and engage in or respond to after the film is over.”

Videos reinforce and illustrate material by providing easily digestible examples of course concepts enacted in “real life” situations. Clips of TV shows and movies are especially helpful because students absorb the concept almost effortlessly. For example, an instructor of government explained using brief clips from the TV show *Parks and Recreation* to illustrate a lecture point: “I have a whole section where I talk about metaphorical thinking,” the instructor

¹³ Andy Horbal, “Instructor Use of Educational Streaming Video Resources,” *The Journal of Academic Librarianship* 44, no. 2 (2018): pp. 179-189, <https://doi.org/10.1016/j.acalib.2018.02.009>.

said. “So I use this very light and somewhat silly scene from Parks and Rec, where they're talking about metaphorical thinking. It's about 30 seconds long, it is just great, because it's a nice light touch, but it actually hits something that's important.” Different video genres dealing with the same topic can also work together to bolster student comprehension. For example, instructors may pair a news interview, an instructional video, and a clip of a TV show to illustrate a course concept from different angles.

Video brings affective and cognitive learning together by opening up space for emotional connections to a topic, in addition to critical analysis or technical training.

Indeed, using video in conjunction with other elements of the class fosters more productive classroom discussions, deepening the overall understanding and exploration of a topic for students. One reason for this, as many faculty pointed out, is that video brings affective and cognitive learning together by opening up space for emotional connections to a topic, in addition to critical analysis or technical training. Students are often able to more readily engage with some topics from an emotional perspective and giving them the opportunity to articulate responses to a video from an emotional perspective can spark more meaningful engagement. “There is something about video, certain kinds of video content, that does play on the emotions,” an instructor of history said. “It enables them to talk about how they feel about the video. It enables us to have a conversation about notions of empathy and so forth, that run alongside our conversations about critical thinking.”

Accommodating learning styles and balancing modalities

Streaming video allows instructors to engage different learning styles by diversifying learning modalities. Breaking up traditional delivery formats of lecture and reading, video provides students the opportunity to receive similar messaging in visual, auditory, and affective modes. As an instructor of sociology explained, video is helpful because it can work synchronously with other formats: “Video doesn't substitute for the lecture content and that's why I like to pair it up. It just makes it more compelling, it breaks it up, and it appeals to different kinds of learners. It helps to reinforce points that might be made in the lecture, but in another format. It's just clearly exciting, and persuasive.” An instructor of performing arts agreed, emphasizing that video sparks waning student attention spans during lectures: “Video helps with lecture because it helps animate things, it helps break up the lecture up so that it flows better. It can provide a break from listening to me talk the whole time, and allow us to shift attention.”

Instructors understand that streaming is a comfortable learning format for their students, and many believe that including video in their courses is important for matching student engagement patterns. “They're a video generation,” an instructor of performing arts explained. “They love videos, so it's critically important to, in my mind, to hit them with video periodically to keep them interested.” Some faculty, however, expressed cynicism about the changes in student learning habits and described a trend of waning reading skills as the driving force for increased use of streaming content in their classrooms. For example, after realizing that

students were only completing video watching assignments and not reading assignments, one instructor referred to their increased use of streaming as somewhat of a concession: “The students now have much shorter attention spans. They don't like reading, a lot of them. I can't change what's been going on in the last 25 years for them, so I just want to meet them where they are.” Another instructor suggested the pandemic hastened a move further toward streaming and away from reading:

Students don't have the bandwidth right now to be reading, which is quite interesting. They're just so tapped out. Reading is hard. They also forgot how to read in the same way because how they were consuming information during the pandemic, it changed their habits—changed their home habits, their learning habits. So, watching a movie is something that's easy for them to do. It also speaks more to this generation that's highly visual.

The sentiment that streaming is easier for students exemplifies a tension many faculty expressed about their use of streaming videos. Namely, while streaming video can be a highly effective teaching tool, using too much is not always pedagogically beneficial. As faculty notice a diminishing willingness and ability to read lengthy texts, they are thinking carefully about how to balance the ease of watching a video with the challenge of “really sitting with a text and doing a close reading,” as one instructor put it. Another instructor reflected on trying to find a good balance between video and reading: “I think how much I use video is another thing to think about. Should it feel easy to do the work? When do I want it to feel easy? When do I want it to not feel easy?” The instructor continued, stating a widely expressed concern that streaming is replacing reading: “I think reading is a skill that is important, and information conveyed in different ways is important. So I do also worry about an over-use of streaming video as replacements for what would previously have been a reading assignment.”

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The desire to balance streaming video with other teaching modalities is particularly reflected in a distinct preference for showing clips or short videos during synchronous class times. Across disciplines, instructors typically show no more than 20 minutes of video during synchronous classes. As an instructor of literature, languages, and cultures put it, “I don't want to use precious contact time for playing an entire video. So I usually play excerpts.” Another instructor said, “I don't want it to be at a point where students feel, when they're in-person at least, like we're just watching videos in class.” Feature length films and longer videos are, nonetheless, critical components to many syllabi but are usually assigned for viewing asynchronously outside of class.

Diversify perspectives and voices

Video can highlight different voices and experiences on a topic, providing students a broader view and “opening their minds” to new ways of thinking. For example, an instructor of education remarked that showing videos about how school is taught in different countries helped provoke curiosity about international education models: “So it’s both to broaden perspectives, and it’s to induce reflection in students as they think back on their own lives and cultures and ways of thinking of the way school should be.” This instructor emphasized that another key benefit is to introduce perspectives that may not come up due to the demographic makeup of the class: “It’s a way to bring diversity into the classroom. You know if you have, say, a majority white class, to bring in voices that aren’t naturally represented in the students is another purpose of video.”

“Balance is everything. I’m always looking for new work and I’m always looking for work in that balance, as far as who’s behind the camera, as well as who’s in front of it.”

Explaining that video can introduce narratives or perspectives that have historically been marginalized from the mainstream educational canon, faculty pointed out the equity considerations in choosing video content. An instructor of visual studies said they try to veer away from mainstream documentaries because students have more chances to see them outside of class: “I’m a feminist,” the instructor explained, “I’m trying to make sure that I’m looking at the works by women, not just in the contemporary field, but going back and trying to make sure that we’re bringing into view some of the work by women that got erased over the decades and the same goes for makers of color from the US context.” Another instructor, teaching film production, explained they prioritize showing students work by diverse filmmakers to ensure students are exposed to a wide range of storytelling techniques, narratives, and perspectives: “Balance everything,” the instructor said. “I’m always looking for new work and I’m always looking for work in that balance, as far as who’s behind the camera, as well as who’s in front of it.”

Video can also be a tool to provide important context when a course includes learning about cultural practices or a topic that the instructor is not personally equipped to teach. In these cases, faculty use video to bring the voices of people who have personal connections to the topic into their classroom. As one professor explained, “If I say X, I want somebody else from a different background, with a different perspective, with different experiences to come in to say why so that we can have a conversation.” Similarly, videos are useful to explain concepts or topics in academic areas that are outside of the instructor’s personal range of expertise. This is particularly relevant for large survey courses where the instructor needs to provide a broad overview of disciplinary content, some of which is inevitably outside of the instructor’s field of specialization. In these cases, instructors described using videos as effectively “guest lectures,” where they may show a video of another scholar or expert speaking on the topic.

Promote cultural and linguistic understanding

Whether through feature films, TV shows, documentaries, tourism videos, or even commercials, videos can be uniquely expeditious in promoting intercultural competence and linguistic understanding. Faculty teaching in fields such as area studies, ethnic studies, anthropology, history, foreign languages, and film found videos helpful in this regard because videos—especially movies, TV shows, and documentaries—pique student curiosity, introduce students to diverse cultural elements, and initiate personal connections to a culture. As an instructor of German noted, “It’s important to read the texts, but when they see the portrayal in film there is this connection that they make, which is very important.”

Video enhances student cultural understanding by helping release them from the trappings of their own imagination through visual and auditory stimuli. An associate professor, who teaches political science and African studies explained: “A book I’ve used several times about hip hop in Accra, the students come in with images in their head of what Africa is like. And even if they read through the text, and get the stories, as well as the author is able to paint pictures with words, his video of these hip hop artists walking through the dusty streets of Accra wearing Bulls jerseys, and drinking a 7-UP, all those details you can’t put in words.” The instructor of German also noted that video can help introduce students to cultural representations that are not typically included in mainstream portrayals: “A lot of people have this idea that Germany is a very homogenous culture, but there’s lots of different groups. I want to include films from Turkish German directors, from Jewish German directors.” Just as in other academic areas, introducing diverse stories and perspectives builds holistic understanding and stronger competency.

Films and TV shows facilitate foreign language learning by introducing students to original, authentic content in the target language and, as a Spanish instructor put it, “by bringing personal stories to the information.” Other instructors explained that the presentation of natural speech patterns together with visual and auditory elements in video help connect the culture to the language and engage students in a fun and challenging way. As an instructor of French explained, the immersive, entertaining, and multi-sensorial qualities of video let students relax and try to “crack the code of the language” without inhibition: “The visual makes the language more easily understood for the students so that they’re able to forget that they don’t speak the foreign language as well as they think they should, they can actually process and understand a whole lot more than they think they can.” In this instructor’s experience, students get very excited by videos and are then more eager to practice talking, an essential element to language learning, when they see video.

Disciplinary literacies

Faculty in certain fields—notably film, media, cultural studies, communications, and theater—use video to teach discipline specific competencies. Often, these instructors teach students to understand the format and elements in the video itself, rather than using a video to illustrate another concept. Because the focus of study is the video, and not the topical information in the video, these instructors tend to be more discerning about the source of their videos and the

quality of the recording. As a result, faculty that focus on film making, composition, and interpretation rely less on YouTube than faculty in other fields, instead using more streaming content from the library or their own personal collection. These faculty also tend to be among the remaining few who have not completely switched from DVDs or Blu-ray to streaming.

Focusing on the multiple literacies at play within a video, instructors teach students how to read and interpret various elements in “the language of film” such as music and audio, design of cinematography, use of editing, and cutting. In these cases, instructors will typically frame video as a “text” and include semiotic analysis of video-specific forms and practices of representation in their classes. As an instructor of communications remarked, “They are our primary texts and one needs to work as closely with the details, visual and sound, as one would with say a literary text, whatever, poem, short story or novel.” An instructor of cultural studies reiterated this, emphasizing that for their purposes, movies are “theoretically as interesting and as culturally charged as books, newspapers, or other kinds of cultural artifacts.”

Instructors teach theories of representation and media literacy through video, often by analyzing how filming techniques can perpetuate stereotypes. An instructor of anthropology described showing students old anthropological films with the goal of engaging students in critical conversations about methods of representing other cultures. As the instructor explained, “the ultimate lesson I hope to instill with this class is how do you authentically and ethically and respectfully represent people with whom you may not be personally familiar?” Another instructor assigned students to “hate watch” a few popular films on Netflix, asking them to tease out the films’ cultural stereotypes and the “little bits that made them feel uncomfortable,” in class discussion.

Where instructors find video

Instructors are “always on the hunt for things” and find content from myriad sources including YouTube, Vimeo, Netflix, Amazon Prime, journalistic sites, listservs, colleagues, friends, and library streaming services. Faculty in fields that use video to teach disciplinary literacies, like film and media studies, communicate more with colleagues about streaming resources and tend to share new discoveries and resources more often.

The combined flexibility and ubiquity of streaming content has had considerable impact on all aspects of instructional practices, from how instructors conceive of video as a teaching tool, to locating content, to building video into their course design and lecture delivery. Syllabi are becoming more dynamic and malleable due to the constant availability of new streaming content, with many instructors creating a skeletal structure for their syllabi that intentionally leaves room for video content they anticipate will appear during their daily lesson planning.

Ease of access and ease of use are key for determining where instructors source their content, and instructors noted that anything posing the slightest technical complexity would often deter them. Amid the range of sources, YouTube and library streaming services were most prominent, though disciplinary differences emerged in which faculty rely more on YouTube and which faculty rely more on the library. Instructors rarely use content from Netflix and other direct to

consumer streaming services because most are hesitant to impose additional costs on students to access streaming content.

YouTube

Instructors across all disciplines include short videos and clips in their teaching, with YouTube being the most popular source of these clips. Four factors stood out as the primary reasons instructors used YouTube: ease of use for both faculty and students, speed with which they could access material, ample and up-to-date material, and cost considerations for students. An instructor of African American studies described YouTube's broad appeal: "I am very spontaneous, so for any point that I'm making, I might go on YouTube and look for a clip that reinforces something that I was talking about. I find YouTube very helpful because anything that you want to find is generally on YouTube."

Faculty from across disciplines value YouTube for its abundant selection and ease of use—so much so that many rarely look at other platforms. As a faculty member teaching in performing arts explained, "It may be that I don't know about other platforms. YouTube is just so easy. They're quick and it's easy to choose what's relevant to the topic because there's just tons of them out there." An instructor of communications agreed, explaining YouTube's search process is faster, easier, and more reliable than other options: "I do not go to the specific kind of repositories because, in the end, you can always find everything on YouTube, and it's easier to find anything there than to go to 10 different science repositories where you might find something." Finally, a materials science instructor explained that YouTube videos are perfectly suited to meet the learning goals of their class, so looking elsewhere is unnecessary: "I don't use anything other than YouTube videos. I think just based on the nature of the type of stuff that we do in the lab, the YouTube videos are really quite helpful."

YouTube is the only place some instructors want to use to find content.

YouTube is the only place some instructors want to use to find content. This is especially true for instructors looking for certain TV shows and movies to use in their teaching material. "There are a lot of movies, like a lot of older films, that I wish were available on streaming services, but they're not," one instructor said. However, as the instructor explained, important scenes from these movies are often provided as clips on YouTube, thereby remedying the problem: "I've hunted pretty carefully through Kanopy and things like that, and there are films that I want to show that just aren't available, but of course, the most important scenes of many movies have been already segmented out onto YouTube, so that helps." An instructor of area studies who teaches at a Canadian institution said YouTube crosses international borders better than other platforms: "I use a lot of YouTube because the content that I teach is not always readily available on this side of the ocean. Short documentary films are also really teachable, so I use YouTube." Another instructor uses YouTube because it is generally the platform that shows up first in their search: "I Google and then I hit the videos tab and they're almost always YouTube clips. Sometimes they come from different sites, if I can ever get a site from an actual university that's awesome or a museum that's awesome, but it tends to be YouTube."

Despite the high levels of use and general satisfaction with YouTube as a purveyor of streaming content, instructors noted the platform is not without flaws and pointed out that some of the platform's seemingly minor inconveniences, like hearing advertisements play, detracts from the overall quality. They also registered concern about the trustworthiness of videos and about copyright infringement, with more than one instructor expressing a wish that they could locate the content they so easily find on YouTube through the library or other "official" platforms instead. "A lot is available on YouTube," one instructor of communications noted, "but it's available on YouTube in a way that I would feel more comfortable getting that from official sources, because you don't know the provenance of [the YouTube] recording. And you don't know if somebody's made edits to that recording." Moreover, due to algorithmic logic, using YouTube presents real risks of inadvertently exposing students to material that may directly counter the goals for the course.¹⁴

The library

Faculty spoke very highly of their libraries and felt that librarians, particularly subject librarians, were receptive in receiving requests, instrumental in troubleshooting video access issues, and helpful in tracking down specific content. Referring to the librarians they work with as "awesome," a German studies instructor remarked: "I am really confident that if there's something I need, and I give [librarians] enough time that [they] will figure it out." Another instructor of anthropology enthused: "I'm very satisfied with the holdings and the responsiveness of the film and video department, and their willingness to work with me and go out of their way to download and make available these antique, obscure anthropology films."

Personal connections with librarians were fundamental to faculty satisfaction with library resources.

The streaming content made available through library subscriptions, and the extent to which the content can be synced with the library discovery layer, however, received less praise. Faculty frequently described the search and discovery process through the library interface as confusing, unreliable, and "impossible to navigate," and few interviewees reported successfully browsing the library streaming options to discover new content. Instead, faculty report searching library services for specific videos they already know about, though this too proved difficult. Many described discovering by accident that the terms of the subscription services had changed and that videos they previously used were no longer available. Given this, it is not surprising that faculty who used the library services most frequently, and who were most satisfied with them, typically had developed personal relationships with librarians and often asked one or two point people directly for discovery and acquisition assistance rather than try to find and access content through the library website. Personal connections with librarians were fundamental to faculty satisfaction with library resources.

¹⁴ Zeynep Tufekci, "YouTube's Recommendation Algorithm Has a Dark Side," *Scientific American*, 1 April 2019, <https://www.scientificamerican.com/article/youtubes-recommendation-algorithm-has-a-dark-side>.

By and large, interviewees use library streaming services for feature length films, documentaries, anthropological films, classic films, and foreign films. Instructors who shied away from library services often did so because they didn't rely on these types of resources or were satisfied with the content they found outside of the library. As an instructor of education explained: "I haven't even looked at what resources might be available to me, for example through the library. Most of what I do, I'm happy with looking for on my own."

Some interviewees teach in adjunct positions at more than one university and as a result need to navigate different subscription packages within multiple systems. One instructor described a confounding process of assembling content through Kanopy and Alexander Street Press to synchronize their syllabi to the streaming options available at each institution:

The Kanopy I have at a different university, that Kanopy actually has more appropriate content than [institution]. For whatever reason, that package that this other school has, has a lot more of the Asian American independent feature films. Whereas it seems like Kanopy here doesn't have as many of those desired films I would want to teach. Alexander Street has a different selection, so films that aren't on Kanopy, those films aren't necessarily on Alexander Street, but, there's enough Alexander Street films that aren't on Kanopy to make it work.

While this example is specific to one instructor's experience working within two institutions, it demonstrates the general confusion among all faculty about subscription differences and about which platform hosts which content. It also illustrates the resourcefulness many faculty demonstrate in finding a way to make library streaming options work. However, gaining an understanding of what is available at any given time can be time consuming. Adjunct faculty in particular likely need to invest more time and labor into this process because they may be teaching at more than one institution, or they may move quickly from institution to institution.

Minimizing students' costs

Keeping costs low for students is a key factor that determines which streaming content instructors assign. Instructors overwhelmingly prefer to assign free streaming content, sourced through the library, YouTube, or other OER platforms, over content from consumer-facing services. Most instructors expressed a strong aversion to imposing any additional costs on students. "That seems terrible to me," an instructor of communication insisted. "Because it becomes an equity issue right away. And it's feeding money to the monster from people who've already paid an astounding amount of money for this education." If a video could not be accessed for free, most instructors believed that libraries, not students, should bear the costs. "I really don't want to ask the students to pay to use Netflix or Amazon," said another instructor. "I just find that if a movie is accessible through the library somehow, even through Kanopy, the library just ought to do it." Another instructor prioritized free content as a way to keep material accessible: "I want to make sure that it's at no cost. Because if the students have to pay for this, then there's a likelihood that they're not going to be able to access that content."

| If a video could not be accessed for free, most instructors believed that libraries, not students, should bear the costs.

Although students often already have their own subscriptions to commercial streaming platforms, most instructors, out of principle, do not assign content to students from direct to consumer platforms like Netflix, Amazon, or HBO. Moreover, with the proliferation of commercial streaming providers, it is harder for instructors to assume students will all have subscriptions to the same services. Still, some faculty require up-to-date streaming content beyond that which is available on YouTube or Kanopy and have little choice but to use direct to consumer subscription services. “A lot of what I use is not available on Kanopy. It’s just not the kind of content that I’m using,” explained an instructor of communication. “Especially with contemporary popular culture. Things come and go so quickly, and if you want to use an example that people know, you have to use new examples. I can’t wait for things to be made available.” These instructors typically tried to source material first from YouTube or the university library (and in a few cases, via their local public libraries’ Kanopy subscription) before resorting to consumer-facing services. In these cases, faculty occasionally included an option for students to watch the assignment through the faculty member’s account.

Challenges

With the exception of IT issues, most faculty face challenges in using streaming content that are specific to their disciplines. For example, instructors using videos for STEM classes expressed overall satisfaction with their experience teaching with streaming video. These instructors largely rely on free YouTube content and listed very few challenges quickly accessing content to suit their teaching needs. Even when content disappears from YouTube, these faculty reported they were generally able to find replacement videos easily. On the other hand, instructors in the arts and humanities, and those who use streaming content not readily found on YouTube, articulated more significant challenges. Confusion about library subscription services, discovery challenges, and lack of access to content due to copyright restrictions, licensing and cost barriers, titles no longer being distributed, and ephemerality or dead links create sizable obstacles.

IT challenges and technical issues delivering streaming content to students occur across disciplines. Faculty described problems such as audio difficulties, screens going black, and being unable to log in to streaming sites from classroom devices as causing considerable disruptions to their classroom flow. These problems emerge from a number of factors and pose enduring threats to the convenience of teaching with streaming video. The combination of rapid changes in tech devices, evolving licensing agreements, and the ad-hoc nature of instructional practices using streaming video make it unlikely the library or any one traditional organizational unit can solve these challenges alone. Instead, libraries, IT departments, academic departments, and teaching and learning resource centers will need to increase communication and develop stronger partnerships to collaboratively address the current and future challenges of teaching with streaming video.

Discovery challenges

Faculty consider the constant flow of new available streaming material generally beneficial to achieving their pedagogical goals, but they also mentioned feeling overwhelmed by managing the “firehose of content choices.” As an instructor of performing arts quipped, “Part of it feels like PhD work, and part of it feels like a guy with internet work.” This remark illustrates a widely recognized dichotomy in the streaming ecosystem that despite the seemingly numerous choices across platforms, locating some kinds of content, namely independent and international content, still requires an inordinate amount of sleuthing that can leave faculty exhausted, frustrated, and ultimately unsuccessful.

Indeed, the growing number of streaming platforms, siloing of content, and various tiers of subscription can make locating content exceedingly time consuming. Faculty described getting lost in the countless sources looking for suitable videos and feeling like they don’t have enough time to dedicate to finding good material. “I feel like I’m starting to use it more but the variety of streaming formats are so many that I get exhausted just trying to track them down,” one instructor explained. “It’s not as though there’s a depot or place where one can reliably go to find the things that one needs,” another instructor remarked. Another instructor lamented they don’t

have time to learn about all of the streaming resources available to them: “I’m sure there’s a ton of amazing stuff that we have access to but it’s just very overwhelming to dig through it all.”

Despite the seemingly numerous choices across platforms, locating some kinds of content, namely independent and international content, still requires an inordinate amount of sleuthing.

Difficulty navigating the library website and library subscription platforms adds to discovery challenges, with the predominant opinion about searching library websites being “it drives us all crazy.” A professor of gender studies illustrated another widely held opinion about library cataloging: “I feel like there’s a disconnect between what I’m looking for and how the material is being cataloged.” Faculty were also overwhelmingly dissatisfied with the interface, search functions, and algorithms of library subscription platforms. As one instructor put it, “they didn’t seem to know what I was looking for.” Another instructor said subscription services did not categorize films with enough intersectionality and described being unable to locate Latin American content through the History subsection. “This is a Kanopy thing,” the instructor explained, “but it needs more real-life classification. I can’t find my material under their headings.”

Students have as much or more difficulty finding content through library resources, according to faculty, and will often not complete assignments if they need to use library resources. A nursing professor explained that they stopped assigning library content because “there was some barrier on there” that made it hard for students to locate content. “So I decided just to take out that video and trade it for these YouTube videos,” the instructor continued. “Because it felt like the students might have more facility with YouTube, like they could really easily find it there.”

Uneven access to international, independent, performing, and fine art content

Instructors teaching in area studies, ethnic studies, foreign languages, film studies, anthropology, and the fine and performing arts often have particular difficulty locating video content. Course topics in these fields require access to rare specialized content, and instructors uniformly stated that streaming services do not offer adequate choices to meet their needs. Moreover, instructors in these fields are often unable to find suitable content on YouTube due to copyright restrictions. “Availability is a really big problem in my field,” an instructor of Spanish remarked. “Oftentimes things that are available on Spanish television or European television, my students can’t access without a VPN workaround. And I can’t do that. I can’t require that,” the instructor continued. “So there’s a lot of material that I can’t access, or I don’t know how to access, or I haven’t figured out how to ask for access through the library.” This instructor also explained that lack of streaming content with available Spanish subtitles created challenges for using streaming video.

International material and independent content produced by women or other minoritized groups can also be very difficult to find. Only showing films produced in an American context is a concern because, as an instructor of English explained, “it limits the kinds and forms of knowledge that students can produce.” Another instructor pointed out the contradictions in a university with “a mission that is outward-looking” but that fails to ensure that students have access to content that helps them “think about other ways of knowing.” International material produced by women or minoritized people can be even more difficult to access. “It's crazy what's not available in this day and age of streaming, like women's films from West Germany in the '70s,” an instructor of film studies remarked. “It's nothing that esoteric you know but it's like it's a director who's not as well known. And so anything that's by female directors, I had to order from Europe, which is just bizarre.”

Many fine and performing arts videos are not only difficult to find, but expensive. One instructor talked about the frustration of discovering videos but knowing they will be impossible to use. “I will find these pieces of fine art video that are just wonderful and I'd love to use them. But they're limited edition, right? Or they're one of a kind. I know even when I ask there's probably no way this is gonna work. It will be so expensive.” A music instructor described attempting to secure a video of a live performance as “a real boondoggle” because of exorbitant costs, and a theater instructor explained that filmed versions of Broadway musicals are notoriously difficult to obtain: “It's very hard to find video footage of them because of copyright. If it's bootleg video then it's on YouTube, but it gets taken down really fast. And you can't rely on it. And I don't ever assign bootleg copies of anything.”

One instructor of performing arts made the pointed observation that streaming video services do not provide content in the same way that streaming music services do. Whereas streaming music services provide access to nearly everything, streaming video services have relatively limited selections. Moreover, the instructor noted, the selections change frequently: “So it's really frustrating going, looking up the film, finding out where it's streaming, and then seeing if there's any sort of university access for it.” This instructor, like many instructors teaching in the arts, mentioned gaining access to content directly from artists, film makers, or performers as a way to work around some of these challenges: “In the best cases that I have, I get access from the filmmakers to a private Vimeo link. And Vimeo, the image quality is better, it doesn't have ads.” Another instructor also reported gathering recordings directly from artists and creating their own little library of clips on their hard drive. This instructor collects their own content because streaming services are too expensive and unreliable: “It feels like I need to rely on my own resources more. Because of the inherent instability of access to titles. Titles might not be available now or they might suddenly not be available. I'm leaning more on my own things, sort of cobbled together.”

Disappearing content

Instructors described ephemerality, broken links, and videos disappearing from streaming platforms as persistent challenges. This problem is not platform specific; instructors encountered it with YouTube, Netflix, Kanopy, and other library streaming services. An instructor of sociology described the feeling of instability created by disappearing content: “It's

like a booby trap sometimes, because you never know if you're going to have access or not, which is out of your control. Your link may have worked last week and now this week it doesn't. It's a major issue too, because you have all this stuff pre-prepared and when you're online especially, it's hard to just replace that." An English professor described a sentiment prevalent throughout the interviews: "I think mostly it's wonderful. I use it constantly, I rely on it, but the reliability factor is the huge concern."

This lack of reliability across platforms, the ubiquity and flexibility of streaming, and changing instructor patterns of course planning are, in many ways, locked in a reciprocal relationship. Instructors know they will likely be able to locate new content at the last minute by searching multiple platforms, but they also realize that old content they had planned to use might suddenly disappear. This dynamic is easier for some faculty to adapt to than others. In a few cases, the ubiquity of streaming material has led to a sense of resilience in course planning and flexibility with content discovery, despite videos frequently disappearing. For example, an instructor of ethnic studies described worrying less when content disappears because they are confident they can find a suitable replacement quickly. "So, previously, I would scramble, I have to find another version of this film," the instructor explained. "But, because more and more platforms for films are available, well, OK, I can't teach *Breakfast at Tiffany's*, but I can teach *Indiana Jones Temple of Doom*, which has the anti-Asian stereotypes in that. So I found that it's on Netflix, I'll teach that." For those like this instructor, whose content is available on YouTube or on consumer facing streaming services outside of the library, finding replacement videos is fairly painless.

For many others, however, disappearing content posed a more serious challenge. An instructor of English described feeling "held hostage" by what is available through the library at any given time. This instructor, like many, noted that ephemerality is one of the unique drawbacks of streaming as a format. Recalling the ease with which they could ensure access to video back in the days of DVDs, the instructor explained a sense of powerlessness brought about by the switch to streaming: "If they didn't have the materials, I could go and buy it and walk it over and say, Okay, this is your copy. They would be able to host that for me, so anything that I could get on DVD, I could show to my students and I would know it would be there." The current dominance of streaming video services eliminated any feeling of reliability, the instructor continued, and created a system that makes course planning exceedingly difficult. "Now I'm in a world that I don't really understand entirely. We've only been on this new system for a couple of years and it's really hard to navigate. I've had experiences where a movie has been available through the library at the beginning of the term, and then all of a sudden a week before my students are going to see it, I find it's not there." The instructor described the disruptions created by content disappearing as profoundly "disconcerting and terrifying," continuing, "What can I do? I have assignments based on this film, I have students counting on doing this film. What they're reading right now is predicated on the idea that they will be watching this film, and I had no reason to suppose they wouldn't be able to see it."

Technical challenges

Though often sidelined as one-off events that are not illustrative of a widespread problem, technical challenges with streaming video, encompassing issues from IT mishaps in the classroom to trouble integrating links into learning management systems, cause significant obstacles for faculty. Many instructors couched these challenges in terms of their own insufficiencies, perhaps not realizing that instructors across disciplines often experienced similar problems. For example, the process of integrating streaming video into the LMS and lecture slides proved difficult for many, but faculty often shrugged off this challenge as specific to them.

Indeed, bringing streaming into the classroom is often the largest challenge instructors face: “It’s not about the availability, it’s about how to bring that into the classroom via the technology that we have, without taking up too much time.” Compounding this, instructors often cannot establish the source of the tech problem, preventing them from finding a solution and leading to continued troubles. “I’m not sure whether this incident that I had a couple of days ago was also related to copyright issues,” one instructor explained, “I was trying to show the film to the class and it began ok. Then the sound went and I couldn’t get the sound back again, even after restarting everything, so now I bring a DVD as a back-up to every class.” An instructor added that the different technological setups in different classrooms create unique challenges and make planning around tech problems difficult: “Some of the equipment in some rooms run a little bit differently than the others. It feels very ad hoc. It feels kind of rinky-dink. I better plan to have that clip ready. And then you go and then all of a sudden in a classroom where the clip is maybe online, it’s not something from [redacted – university] that’s been loaded. All of a sudden you’re getting ads and porn and stuff in class.”

Although tech problems seem tangential to streaming platforms, they significantly impact the outcome of the class: “Theoretically it’s not a big deal,” said one instructor, “but in practice it sometimes winds up with wasting a good solid 15 minutes trying to figure out the technology.” As the use of streaming video continues to grow, and faculty depend on it more, these theoretically small problems, like Wi-Fi failures, audio disconnections, and mismatched classroom devices will continue and likely grow into more substantial challenges.

Poor quality recordings and playback

Across all streaming services, low quality video processing and poor resolution compromise instructors’ ability to effectively use streaming video. Instructors mentioned discovering too late that a video they had assigned was so blurry and pixelated it was impossible to watch, and one instructor stopped using a library streaming service completely because the poor visual quality made the content unusable. Another described posting videos to the LMS system that were too blurry to watch, but being unclear about the reason the visual quality was poor: “They were very pixelated and I don’t know if that was because the source film itself wasn’t of high quality or if it was a translation over to Moodle, or into the streaming and then to Moodle.” Instructors experienced similar problems with some YouTube videos, particularly with videos of films that are out of print. Noting that the digitization process of these films is often amateur, an instructor

of performing arts explained “They’re such low quality like, 240 or 360, they’re just not worth watching, because they’re so compressed.”

Indeed, not all instructors prefer streaming video to older formats like DVDs or Blu-rays. Instructors of film and media were particularly vocal about losses they feel as streaming replaces DVD and Blu-ray, pointing to the “huge difference” in quality between Blu-ray and streaming. Many echoed the sentiment of a film studies instructor who acknowledged Blu-ray is a dying form but emphasized wanting “films to look and sound the way they're meant to look and sound.”

In addition to compromising the quality of the recording, streaming playback options are imprecise, making a close analysis of elements of the video in class more difficult. “You can't look at cuts in detail,” an instructor of film studies explained. “You just cannot count on being able to deeply analyze a scene if you can't control the forwards and backwards speed of playing and the exact position where you want to stop. And most players just don't have that kind of accuracy.” According to this instructor, the issue extends across all streaming services. “I'm talking about whether you're looking at Netflix, Amazon, Kanopy, or Alexander Street, which I think is the worst.”

Copyright questions

Few instructors have a clear understanding of whether their instructional practices using streaming video align with copyright laws.¹⁵ Many seemed indifferent about copyright laws, pointing to the fuzziness around fair use as influencing their views: “If it’s on the internet, it’s fair game as far as I am concerned,” an instructor of arts explained. “It’s not up to me if someone put it there illegally.” Some, however, were concerned with abiding by copyright laws but also believed the ambiguity around fair use made consistent copyright compliance difficult. These instructors often chose to use library resources because they can be certain that library streaming services are properly licensed: “Some of these films are on YouTube as well, legally so because perhaps the copyright is gone, some old films. But it's easy, for example, on Kanopy for me to choose something that is on Kanopy because students can access it. It's super legal. It's very protected and I can create clips,” an instructor of languages explained.

“If it’s on the internet, it’s fair game as far as I am concerned,” an instructor of arts explained. “It’s not up to me if someone put it there illegally.”

However, faculty were confused about how to show content legally if the library couldn’t provide it. Instructors looking to show foreign and independent content in particular struggled with figuring out how to access these videos and stay within copyright laws. “One of the things that I come up against constantly is what exactly is the copyright issue here?” said one professor.

¹⁵ For a review of how US copyright law currently applies to streaming content for educational and research purposes and an exploration of the opportunities for academic libraries, see Danielle Miriam Cooper and Katherine Klosek, “Copyright and Streaming Audiovisual Content in the US Context,” Ithaka S+R, 5 January 2023, <https://doi.org/10.18665/sr.318118>.

“Because I would love to have more content from foreign language productions. And I don’t want to go into the gray zone of streaming through shall we say somewhat dubious platforms. But I also wonder, if nobody else makes the video available, and it is in fact crucial for talking about [a] topic, how do I go about this?” Another instructor noted that the switch from DVD to streaming video exacerbated copyright issues, in part because international and independent selections are so limited on streaming platforms: “Teaching with streaming platforms limits one to a fairly Hollywood and Eurocentric canon of film, and there’s so much more stuff out there that we would want to use. So, having access to my own DVD where I can go, ‘Here, I’ll pop this in. We’ll watch this,’ and that follows within the copyright guidelines.”

In some cases, copyright issues can directly affect class sessions. One instructor recalled attempting to show the beginning of a movie to students on Zoom but having the screen turn black because of copyright restrictions. This instructor was forced to send students links to clips on YouTube, telling students exactly where to start watching and where to finish, and reconvene the class on Zoom after students had watched the video separately. Encountering the sudden copyright barrier compromised the learning experience and caused, according to this instructor, “a chaotic class.”

Better supporting faculty

Many instructors are satisfied with how they currently use streaming video, but there is a disjuncture between what kind of streaming experience instructors prefer, what the library currently offers, and how the library communicates about its streaming resources. The popularity of YouTube and the relative underutilization of library streaming resources reflect this. When asked for examples of resources or services that might help them use library streaming resources more efficiently, instructors provided suggestions that indicate a desire to engage more with library resources.

Due to the streaming format, some support needs fall outside of traditional library responsibilities and will require strengthened collaboration with other organizational units on campus such as IT departments and centers for teaching and learning. Other support needs are more directly related to the capabilities of streaming vendors rather than the library. Libraries can address these support needs by communicating faculty challenges to streaming vendors and evaluating future contracts based on how well vendors are able to adjust their services to better meet faculty needs.

Clarify library services and streaming subscriptions

Throughout all interviews faculty expressed widespread confusion about how to request, find, and use streaming content through the library, how libraries make decisions on what to license, and the costs associated with streaming. This lack of clarity about “what actually could be done and could not be done” is frustrating and tends to discourage faculty from using library streaming resources. As one instructor explained, “You put a request in and maybe they do, maybe they don’t, maybe not now. So it makes me tend not to request things because I’m

thinking maybe another video will be more important.” Another instructor, describing a time when the library could not obtain a video they requested because it cost \$400, said “I have no sense of what I am asking the library to do, I have no idea what it costs.” De-mystifying library decisions about the cost and timelines for licensing individual films will go far in helping instructors know when and how to request content.

Instructors do not typically think of library streaming subscriptions as distinct from individually licensed content; a good deal of faculty confusion stems from not understanding that there are different protocols for course reserves and streaming subscription platforms. As one instructor explained, “I think one of the challenges is that there's so much at the library, we can't always track what we're actually using. When someone says this is ending, do we need to renew it or not?” Standardized and increased communication, ideally provided on website pages, about the differences between obtaining content from course reserves and subscription services could familiarize faculty in how different library streaming resources work.

Understanding library streaming resources will help faculty manage their expectations for what can “actually be done.” This will likely alleviate some of the unpleasant surprises when content is not available and help faculty develop more concrete plans for teaching with library streaming resources. As one instructor explained: “From a teaching perspective, I would love to know what's in each package, because I know I want this film and I know why I want that film, but if I knew what else is in the package then that might actually affect whether I teach with those other films.”

Knowing more about available streaming related support services and where to turn for support will also help instructors use library streaming resources more successfully. Instructors mentioned wanting support in many areas, from tech to discovery to curriculum planning, but were unsure about whether these support services existed and where they were offered. To address this, libraries could develop, in collaboration with IT and the center for teaching and learning, a dedicated streaming support resources page that includes resources for support in areas such as IT, curriculum development, discovery, and copyright training.

Simplifying discovery

One of the hardest things, for many instructors, is finding good quality material and finding out where it lives. Sorting through the glut of free online choices exhausts faculty, and many wished for support along the lines of “four assistants doing research to track things down.” Others suggested “a single database that could point you to where things lived,” or “a comprehensive list of the films that are available and broken down by subject.” Aggregated and discipline specific content lists accessible directly on the library website were also popular suggestions.

Nearly all interviewees expressed frustration about vendor search functions and preferred to avoid searching through vendor platforms for content. Instead, faculty mentioned wanting to search the library website for discipline specific streaming content without navigating away from the website onto vendor platforms. As an instructor of ethnic studies explained: “I want to see all the content that's available related to race and ethnicity on the library website, and I want

to be able to click on that content and click on that link, and let me know that these are all the films that are available.” Faculty in media studies, area studies, communication, and languages went a step further in asking for disciplinary specific cataloging by suggesting “a curating service” that compiled material relevant to each discipline from across various streaming sites.

Admittedly, providing curated sets of content from across the web is out of reach for most libraries, but integrating lists of curated content into LibGuides could begin to address this need. A number of faculty also thought adding more thematic liaisons between the library and departments would be helpful. Given that faculty who reported the most success using library resources had developed personal relationships with librarians, emphasizing liaisons would likely be of great benefit to faculty across many fields.

Finally, although clips and short films are overwhelmingly popular for teaching, they are also the most difficult for instructors to find. Throughout the interviews, faculty expressed a desire for access to an expanded selection of clips and short films. Many described a “library of short, smart films” as an ideal teaching resource because “part of the difficulty is that it is hard to find things that are small, that will fit within that classroom and still have a conversation about it.” Others wanted to be able to access clips from movies without going to YouTube: “Sometimes I wish it was possible to just have a little ongoing library of clips,” an instructor of English said. “Because I hesitate to request too many films to be loaded for the class. But it would be nice if there was a way to request, five minutes in this film, and this ten minutes from that film.” Given the overwhelming preference for using short streaming content, finding ways to support faculty in discovering it will be key to meeting their needs. One concrete idea an instructor proposed to facilitate easier discovery of existing clips, is to create a subtopic on the library website or streaming platform that catalogs clips, or “ten-minute videos and short documentaries” in their own category.

Enhanced technical training and curriculum development

While some instructors have become adept at using software to download, manipulate, and embed videos into their course material, many other instructors need assistance in developing digital competencies. Rapid changes in technology and streaming platforms make it challenging for instructors to stay up to date on their own, and many would benefit from additional training to become (and stay) proficient with the technical aspects of teaching with video.¹⁶ The lack of technical acumen prevents instructors from maximizing the benefits of streaming video not only because they often run into obstacles delivering streaming content, but also because they are unable to conceptualize better possibilities for integrating streaming content into their

¹⁶ Studies have demonstrated that low digital fluency and a lack of training have long posed challenges to the use of video in classrooms. See Amy M Johnson, Matthew E. Jacovina, Devin G. Russell, and Christian M. Soto, “Challenges and Solutions When Using Technologies in the Classroom,” in *Adaptive Educational Technologies for Literacy Instruction* (New York: Taylor & Francis, 2016) 13-29; Lan Li, Eric Worch, YuChun Zhou, and Rhonda Aguiton, “How and Why Digital Generation Teachers Use Technology in the Classroom: An Explanatory Sequential Mixed Methods Study,” *International Journal for the Scholarship of Teaching and Learning* 9, no. 2 (2015), <https://doi.org/10.20429/ijsofl.2015.090209>; And as discussed in Zac Woolfitt, “The Effective Use of Video in Higher Education,” Academia.edu, 24 February 2016, https://www.academia.edu/22387499/The_effective_use_of_video_in_higher_education.

pedagogy. Robust training workshops can open possibilities for deeper conceptual engagement with the pedagogical uses of video because faculty could spend less time troubleshooting. To achieve this, libraries could strengthen collaboration with centers for teaching and learning and IT departments to develop a comprehensive streaming resources training and support center.

Workshops to teach instructors how to use software to download videos, create clips, and integrate video links from a variety of sources into LMS systems would be particularly effective in reducing challenges. Faculty were highly interested in developing new digital skills to improve their ability to use streaming video, and many said they would attend workshops or trainings that could help them do so. “I know you can create clips on Kaltura,” one instructor said. “But when I tried I kept getting error messages.” The instructor continued, explaining they are “not totally aware of how all the different departments operate,” but they would definitely attend some kind of training on using Kaltura, as well as a seminar about integrating streaming content into Canvas. Many interviewees echoed this enthusiasm for training but were similarly unclear about where the training would take place.

In addition to digital skills and software training, faculty indicated they would benefit from curriculum development services that provide support for teaching with streaming video. Instructors were curious to learn about new ways to integrate streaming into classes and wanted to discuss teaching strategies with people who had more expertise in streaming. “It would be a great resource to have someone available to actually talk through and think about how to add video content to a syllabus” an instructor of education remarked. Others mentioned that having “someone just to brainstorm with” would improve their skills teaching with streaming video.

Focus on increasing digitization and physical holdings

Some challenges created by copyright restrictions and lack of access to international, independent, and fine and performing arts content can be mitigated by increasing library digitization of physical holdings. Many instructors noted that access and copyright challenges were exacerbated with the increase of streaming. Recalling the old days of DVDs with fondness, some suggested the library can help to restore a sense of reliability by working to increase digitization of their physical holdings.¹⁷ “There are some films, some documentaries that are rare, that aren’t available on streaming at all,” an instructor of film said. “Our department, from before streaming, has a decent DVD/VHS collection and some of those esoteric films that the department has or the library has, I’ve been able to have them digitized and put up there for students.”

Instructors occasionally digitize their own DVDs or Blu-rays, but they tend to lack the equipment and expertise to create high quality copies. These instructors were dismayed by the lack of digitization efforts they saw in the library and expressed frustration that the library was

¹⁷ This highlights one area where the current practices of academic libraries may not be best aligned with instructor needs. Our 2022 survey on streaming media licensing and purchasing practices at academic libraries found that digitizing VHS tapes and DVDs is happening at a much smaller scale relative to libraries’ purchasing and licensing approaches to addressing streaming media demands. See Danielle Miriam Cooper, Dylan Ruediger, and Makala Skinner, “Streaming Media Licensing and Purchasing Practices at Academic Libraries Survey Results,” Ithaka S+R, 9 June 2022, <https://doi.org/10.18665/sr.316793>.

not taking advantage of existing legacy media. “We have the resources,” one faculty member said. “But I feel like the university is sitting on those resources. They could be taken advantage of much more and relieve some burdens [related to access] for some classes.” Others wanted to collaborate with the library on creating their own digital library by focusing on digitizing physical copies but were confused whether this was allowed: “Can we even create a digital library? Maybe we cannot, it's not allowed. I don't know.”

Noting that streaming has seemingly erased so much content, some faculty sounded an alarm at the library's rapid transition from DVDs and Blu-rays to streaming. They encouraged libraries to focus on acquiring physical copies of video rather than licensing content to ensure faculty have access to content in the future. As one film studies instructor put it, “There's going to potentially be a time where that DVD is no longer going to be produced and that publisher or production company goes out of business or is not willing to make a digital copy. So, trying to get a hold of as much content that is not available digitally may be something that may be worthwhile.”

Copyright training

Instructors are unclear about what is legal, what is sort of legal, and where their own practices fit into the scheme. Describing the lack of legible guidelines about educational streaming video practices, one instructor remarked that the streaming video environment felt “a little like the wild west.” This is unsurprising given that fair use laws are notoriously difficult to understand and written for decisions made on a “case by case basis.” However, not understanding copyright laws exacerbates some challenges for instructors, in part because they could have unrealistic ideas about what the library can do. For example, copyright restrictions prevent libraries from making streaming versions of some physical copies, a fact that many faculty do not know but that could derail teaching plans.

Online and hybrid classes where students may be accessing material from outside of the US further complicate questions of legality with regard to streaming. As transitions to digital hybrid classrooms inevitably continue, and students and faculty join virtual classrooms from all over the globe, it will be imperative for instructors to have a clearer understanding of fair use, copyright, and international laws governing the streaming content they provide. An instructor teaching in Germany noted that the ad-hoc era of teaching with streaming is likely coming to an end as copyright laws are already changing teaching practices in Europe: “During the next five years, we really need to professionalize the way we distribute copies in whatever medium to our students,” the instructor remarked. “I have no concrete or pragmatic answers on how best to do that for videos, but I think I think the European Union's new regulations, especially when it comes to copyright and YouTube, have already changed a bit of our practices.”

Many librarians themselves may not be fully apprised of US or international copyright law but, as Scott Spicer outlines, librarians can begin addressing the need for increased copyright awareness by taking a number of actions, including becoming familiar with the Code of Best

Practices in Fair Use for Online Video.¹⁸ The Association of Research Libraries and Ithaka S+R also recently published an issue brief on copyright and streaming audiovisual content in the US.¹⁹ Finally, librarians can help facilitate better understanding of copyright by coordinating training with legal counsel for instructors to learn about using streaming video in US and international contexts.

Recommendations

Libraries

- Integrate curated lists of video content into existing and future LibGuides.
- Offer workshops on best practices for discovering and accessing video in library collections, targeted towards faculty in high-use disciplines such as languages, area studies, communications, the behavioral sciences, and social work.
- Prioritize internationally produced content and the needs of faculty in the performing arts, film, and media studies when making licensing decisions.
- Emphasize copyright laws in library communications and offer trainings or consulting to faculty regarding copyright.
- Establish a reliable channel of communication to convey faculty challenges to vendors.
- If existing physical video collections have not been digitized, consult with faculty to identify high priority items to digitize, and consider shifting priorities from streaming licensing to digitizing pre-existing content.
- Create a comprehensive streaming support resources page that includes resources for support in areas such as IT, curriculum development, discovery, and copyright training.
- If possible, make video and audio content from special collections readily available to faculty for classroom use.

Centers for teaching and learning

- Host peer-learning groups promoting the exchange of ideas and best practices around teaching with streaming content in synchronous and asynchronous instruction.
- Develop resources and trainings to help faculty integrate streaming video into LMS systems, manage streaming video, and use platform specific features or software.

¹⁸ For a comprehensive discussion of fair use issues and possible solutions academic libraries can take, see Scott Spicer, "Perspectives on the Role of Instructional Video in Higher Education," in *The Routledge Companion to Media Education, Copyright, and Fair Use* (Routledge, 2018), 236–57, <https://doi.org/10.4324/9781315637549-17>; Peter A Jaszi and Patricia Aufderheide, "Code of Best Practices in Fair Use for OnLine Video," American University Center for Social Media, 2008, https://digitalcommons.wcl.american.edu/pijip_copyright/1/.

¹⁹ Danielle Cooper and Katherine Klosek, "Copyright and Streaming Audiovisual Content in the US Context," Ithaka S+R, 5 January 2023, <https://doi.org/10.18665/sr.318118>.

Vendors in the higher education market

- Create (or improve) features that allow faculty to easily make, store, and show clips.
- Enrich existing streaming offerings by increasing the genres of video offered beyond feature films and documentaries. Include diverse types of content (e.g., advertisements, lectures, tutorials, and news broadcasts) whenever possible.
- Continue to increase the quantity of international content and content created by minoritized people featured in streaming collections.
- Improve content metadata to facilitate discovery from a wide range of disciplines.
- Design features that allow easy integration into learning management systems and discovery through library websites.

Appendix 1: Teams

Ithaka S+R thanks the 24 university libraries and their research teams for collaborating on the Streaming Media project, which enabled the research for this project and the findings to be made public for wider benefit to the community-at-large:

Brigham Young University

Emily Darowski, Betsy Hopkins, Elizabeth Smart, Rebecca Walton

California State University Fullerton

Anthony Davis, Kevin Phillips, Keri Prelitz, Ann Roll

Central Washington University

Nicole Cabral, Bridgette Flamenco, Erin Sulla, Sydney Thompson

Davidson College

Matt Ballard, Lisa Forrest

Freie Universität Berlin

Franziska Harnisch, Julian Katz, Mario Kowalek, Sina Menzel, Lea Schneider, Cosima Wagner

Georgetown University

Emily Guhde, Melissa Jones, Mark Winek

Harvard University

Jessica Evans Brady, Reed Lowrie, Joshua Lupkin, Nicole Santiago

Haverford College

Anna Fodde-Reguer, Ellen Garrison, Norm Medeiros

Johns Hopkins University

Don Juedes, Jessica Keyes, Liz Mengel, Mariyam Thohira

North Carolina State University

Emily Cox, Xiaoyan Song, Lynn Whittenberger

Ohio State University

Anita Foster, Courtney Hunt, Jennifer Schnabel, Gene Springs

Portland State University

Carly Lamphere, Elsa Loftis

San Jose State University

Ann Agee, Emily Chan, Mantra Roy, Nick Szydowski

Sewanee: The University of the South

Penny Cowan, Pat Dover

University of British Columbia

Lisa Larkins, Arielle Lomness, Anne Olsen, Sarah Parker

University of Connecticut

Susanna Cowan, Roxanne Peck, Michael Rodriguez, Jane Strudwick, Merlita Taitague

University of Delaware

Maria Barefoot, Erin Daix, Meghann Matwichuk

University of Manitoba

Victoria Ho, Leslie Moor, Alex Snukal, Jennifer Ticknor

University of Maryland

Daniel Mack

University of Michigan

Laurie Alexander, Sigrid Anderson, Kristen Castellana, Shevon Desai

University of Pittsburgh

Fern Brody, Carrie Donovan, Peter Egler, Christopher Lemery, Berenika Webster

University of Virginia

Beth Blanton-Kent, Timothy Morton, Arlyn Newcomb, Erin Pappas, Elizabeth Rapp, Leigh Rokey

University of Wyoming

Kaijsa Calkins, Paula Martin, Debbie McCarthy, Denis Shannon, Jennifer Strayer

Wayne State University

Paul Beavers, Veronica Bielat, Rachael Clark, Carly Lesoski, Serena Vaquilar

Appendix 2: Methodology

Participation in the project was open to any institution of higher education able to meet project specifications such as timeline and research capacity, and 24 colleges and universities joined the project. Participating institutions identified one to four representatives from their libraries to serve on their local team and conduct research on their respective campuses. There were a total of 23 teams with one team including members from two institutions. The teams were composed mainly of library faculty and staff working in myriad positions, including subject liaison, collections, electronic resources, acquisitions, copyright and policy, and research librarians.

After the teams were created, Ithaka S+R guided the local teams in an internal information gathering exercise about the scope of media streaming licensing terms and usage data at their institutions. Findings from these exercises enabled each team to select a collection area of priority to focus their research. Using a shared interview guide developed by methodological experts at Ithaka S+R, Ithaka S+R then trained each team to conduct semi-structured interviews with faculty about their experiences and needs with streaming media in that collection area of priority. (See Appendix 3 for the interview guide).

The goal was for each local research team to conduct 10-15 interviews. A few teams faced recruitment challenges and were unable to reach that number, making the range of interviews conducted by each team four to 15. Together, the research teams completed a total of 244 interviews, resulting in a high volume of data collection. The teams then shared their de-identified dataset and interview transcripts with Ithaka S+R from which Ithaka S+R developed a representative sample of 44 transcripts. Tables 1 and 2 summarize our sample, which was developed to be representative of the overall population's distribution as measured by subject field, academic rank of the interviewee, and institution. The sampled transcripts were coded for analysis in NVivo using a grounded theory approach.

Table 1: Academic Rank of Interviewees Included in Sample

Academic Rank	Percentage of Sample
Assistant Professor, Tenure-Track	23%
Associate Professor, Tenure-Track	23%
Professor, Tenure-Track	25%
Non-Tenure-Track	29%
Grad Student	0%
Other	0%
Total	100%

Table 2: Departmental Affiliation of Interviewees Included in Sample

Department	Count
Anthropology	2.3%
Architecture/planning/landscape	2.3%
Communication/film/media/visual studies	11%
Education	5%
English/comparative studies	7%
Gender/ethnic/cultural studies/philosophy	9%
International affairs/governmental studies/political science	2.3%
History	9%
Languages, literatures, and cultures	25%
Psychology/neuroscience/behavioral sciences	4%
Nursing/kinesiology	2.3%
Performing arts/art and design	7%
Social work	2.3%
Biological/environmental/earth sciences	2.3%
Sociology	2.3%
Business/economics	2.3%
Materials science/engineering/chemistry	2.3%
Other	2.3%
Total	100%

To protect their privacy, the identities of interviewees were not shared with Ithaka S+R, and they remain anonymous in this report. However, we thank the interviewees for their participation. Above all, we wish to thank the 23 project teams that took part in this research, without whom this report would not have been possible.

Appendix 3: Semi-Structured Interview Guide

Introduction

The ways that instructors can work with video content is evolving rapidly with the ascendancy of streaming platforms, including those the library licenses or are made freely available, over older formats like VHS and DVD. Within this context, the library is conducting a study to understand the possibilities for fostering instructional use of video content at our university. I'd like to ask you questions about your current use, preferences, and future plans for incorporating video content in your teaching, and perspectives on the role that the library can play towards that.

Before we begin, I'd also like to acknowledge that the landscape of available video content for educational use can be incredibly complicated, especially in terms of copyright terms and pricing models. Those complexities are not the focus of our conversation, but of course they cannot be divorced from how we can use video content in our teaching. As we go, please feel free to request we pause at any point if you'd like further explanation or clarification about video content in the context of the broader educational media landscape or any other aspect of our discussion.

Current Practices

I'd like to begin by exploring how you teach with video content, including VHS, DVD, and the content provided through streaming platforms.

1. Do you currently use any video content in your classes?
 - » *If yes*, Briefly walk me through what kinds of content you are using, and in what format/platform and length?
 - For which classes do you use this content in?
 - How does the content contribute to the pedagogical goals of the class?
 - » *If no*, why is that? [and if they have never used video content in their classes, skip to question 3]

2. How do you determine which video content you use in your classes?
 - » At what point in developing a course do you identify opportunities to include this content? Do you typically have very specific titles in mind?
 - » Where do you typically look for content?
 - » To what extent do delivery affordances determine whether you incorporate a specific video offering into your course? (e.g., delivery platform, accessibility options)
 - » Do you consult with any other people to identify opportunities to incorporate video content into your class offerings?

3. To what extent are your current needs for incorporating video content into your courses being adequately met?
 - » Has the pandemic changed your needs for incorporating video content into your courses in any way?
 - » Are there any recent examples where you encountered barriers to incorporating specific content into your class? [e.g., unavailability of specific titles, copyright complexities]
 - » *If yes*, What were the barriers, and how did you work around them?
 - Did you work with any others to mitigate those barriers?
 - Is there anything else that could have been done to alleviate these challenges?

Evolving Expectations

Next, I'd like to learn more about how your expectations are evolving around how video content can be incorporated in your classes.

4. Has the availability of streaming content changed how you integrate video content into your teaching?
 - » What do you see as the greatest affordances of streaming content for your teaching?
 - » Are there any downsides to incorporating streaming content into your teaching?
 - » Is there anything that could be improved about streaming content offerings and/or functionalities to maximize the opportunities to incorporate it into your teaching?
5. Has the availability of streaming content changed your expectations about how the costs of the video content should be covered?
 - » Are there any instances where it is acceptable to require students to pay directly to access video content for educational purposes?
 - » How do your expectations with video relate to your expectations for how other forms of course content are paid for? E.g., textbooks, journal articles.
 - » What are the top factors that you think are important for determining the extent to which the university covers the costs of video content? Which part(s) of the university should cover those costs?
6. What kinds of resources or other supports would help you identify and assess opportunities for including video content into your classes?
 - » Would additional information about pricing structures, available titles, or format types affect your decision-making about what content to assign?
 - » Ideally, how would you like to get this information and from whom?

Wrapping Up

I'd like to finish up with a few questions that put your perspectives into the broader context of your field and look towards future developments and needs.

7. How does your use of video content in your teaching compare to the practices of your peers?
 - » Are there any kinds of video content or functionality that you would like to see more of?
 - » Are there any developments in the areas that you teach that may affect how you or your peers would like to teach with video content in the next five years?
8. Is there anything else that is important for me to know about how you or your peers incorporate video content into teaching?