ABSTRACT

Although Farrelly and Hutchinson (2014) have shown that a substantial majority of academic libraries now provide streaming video, the literature contains few studies which focus on how such resources are used. This article presents the results of a qualitative research study investigating instructor use of one category of streaming video resources, educational videos, which are important because they are sold a higher price than most individuals can afford, and thus are typically only available to instructors through the library. The researcher conducted in-depth interviews with 18 instructors who use educational streaming video resources and analyzed the data to provide insight into factors that academic libraries should consider when deciding which resources to invest in, which acquisition models to pursue, and what marketing strategies to employ to ensure maximum usage.

KEYWORDS

Streaming video, educational videos, academic libraries, collection development

INTRODUCTION

In 2014, Farrelly and Hutchinson published the results of a national survey of academic libraries about the status of streaming video. They found that 70% of all academic libraries were providing streaming video resources, leading them to conclude that a "tipping point" had been reached (p. 73). This was born out by a follow-up study they conducted in 2015 which found that the number had increased to 84.5% (p. 17); they also discovered that academic libraries which provided streaming video were spending an average of $24,500 on resources of this type (p. 24). Despite the massive amount of money that this represents, virtually no research has been published which describes what academic library patrons actually do with streaming video. This glaring omission is, if anything, made even worse by the abundance of articles describing the creation of academic library streaming video collections and services, which combine to create the impression that individual libraries need to invest in this area now or risk being left behind, but provide little guidance on how to make financially prudent decision.

The present article addresses this gap in the literature by analyzing the results of in-depth interviews with 18 instructors at the University of Maryland about their use of one important category of streaming video resources, educational videos, which Franco (2002) defines as non-fiction titles which "contain information that is important for educators" but are not "of enough interest to consumers to warrant distribution to the home market" and thus are sold at higher prices than most individuals can afford.

LITERATURE REVIEW

Brancolini (2002) provided a thorough overview of video collections in academic libraries for Gary Handman's landmark work on media librarianship, *Video Collection Development in Multi-Type Libraries: A Handbook*, but touched only lightly on the subject of streaming video, which was still in its infancy at the time of publication. Enis (2015), Farrelly

(2014, 2016), Ferguson and Erdmann (2016), and Handman (2010) effectively updated this work by providing overviews of the history, prevalent collection and pricing models, challenges, and benefits of streaming video. Wahl (2016) described "five key points to consider when choosing a streaming video database to add to your library's collections" (p. 11).

Farrelly and Hutchinson (2014, 2016) and the Primary Research Group (2011) both conducted extensive research into the prevalence of streaming video resources in academic libraries and how they are acquired, funded, and hosted. Cleary, Humphrey, and Bates (2014) conducted a similar, albeit less comprehensive, survey of Australasian Universities. Allison (2010) and Bossenga et al. (2014) surveyed members of two different library consortia about their use of streaming video and summarized the pros and cons of different approaches to collection building.

Faculty use of moving images was investigated by Kaufman and Mohan (2009); Moran, Seaman, and Tinti-Kane (2012); and Otto (2014). All three studies found that the library plays a secondary role to reviews and word-of-mouth as a resource for discovering moving images to use, and to online video sites and personal and departmental purchases as a resource for obtaining them. Kaufman and Mohan (2009) and Otto (2014) also found evidence that faculty use of moving images is increasing, and that faculty prefer to use video in web-based formats, although they identified many barriers to the more widespread adoption of streaming video as well.

Cruse (2006); Krippel, McKee, and Moody (2010); and Thornhill, Asensio, and Young (2002) provided overviews of the research on multimedia as a pedagogical tool in higher education. Greenberg and Zanetis (2012) provided a similar overview which focused specifically on streaming video content. Hartsell and Yuen (2006) reviewed the literature on the role of streaming video in the online education environment. Shephard (2003) analyzed case studies to describe how higher education instructors use streaming video in the classroom in order to articulate a "research agenda" for investigating how it can support student learning. Osteen, Basu, and Allan (2011) built on Shephard's work by reviewing the literature published since 2003 and added three new case studies featuring streaming media to "serve as guidance for other higher education instructors considering using it" (p. 146). Anderson (2009) and Barnatt (2011) reviewed the use of "public online video" resources such as YouTube in higher education. Ariew (2008), Cho (2013), and Little (2010) review the use of such sites by academic libraries. Leonard (2015) studied higher education student use of video and found that 79% of students voluntarily watch educational videos in addition to the ones they are assigned by their professors, but that very few of them look for these videos on the library website (p. 3). Tiernan (2015) examined student preferences for streaming video and found that students valued it and wanted to see its use by instructors become more ubiquitous. Chao and Zhao (2013) and Cleary et al. (2014) also found that college students prefer streaming video to video in physical formats.

Garofalo (2013) noted that "[w]hat might seem like a straightforward transition from DVDs to streaming media is in actuality more complex than the shift from print books to ebooks" (p. 294). Duncan and Peterson (2014) provided a thorough overview of all of the issues related to academic library streaming video collections and services. Cottrell (2012) argued that academic libraries need to be aggressive collectors of digital video content or risk being usurped by IT managers. Hoover (2016) described the discoverability issues related to educational streaming video resources. Anderson (2015); Cross, Fischer, and Rothermel (2014); Eng and Hernandez (2006); Fountain (2011); Koennecke (2015); Laskowski and Teper (2014); McKenzie and Schmidt (2012); Morris and Currie (2016); Prosser (2006); Schroeder and Williamsen

(2011); and Tucker (2013) all described their experiences creating streaming video services and collections at academic libraries, and Miller (2013) described the creation of NJVID, a "digital video portal and repository" for the state of New Jersey. Coiffe (2014) described the creation of a "moving image/hypermedia hub" at the Borough of Manhattan Community College and demonstrates that open resources like this offer a superior social return on investment to subscription streaming video databases.

Finlay, Johnson, and Behles (2014) found that availability through commercial streaming video resources like Netflix was predictive of higher circulation of library copies of the same title. Morris and Currie (2016) investigated student access to commercial streaming video services and concluded that providing access to feature films in streaming video form is not a good use of academic library resources. Shelton (2016) provided an overview of use-driven acquisition (UDA) plans for acquiring educational streaming video resources. Erdmann, Ferguson, and Stangroom (2014) described a UDA program implemented by Simmons College and the University of Massachusetts Amherst, which they found offered a significantly better return on investment than either a DVD collection or a purchased streaming video collection. They also reported having success in increasing usage through an awareness campaign. Knab, Humphrey, and Ward (2016) described a UDA program implemented by a consortium of eight academic libraries in New York and determined that usage was primarily driven by faculty and classes. Farrelly (2008) and Cleary et al. (2014) also described academic library UDA programs for streaming video.

Cross (2016), Duncan and Peterson (2014), Fountain (2011), Frunin (2012), King (2014), and Russell (2010) discussed the copyright issues associated with streaming video. Cross addressed the practice of using streaming video resources obtained through commercial services such as Netflix and argued that "[a] licensed copy of a streaming service like Netflix should be understood as 'lawfully made' for performance and display in a classroom just as a DVD borrowed from a library's collection would be" (p. 14). Ezor (2013) took the opposing view, arguing that "teachers should be wary of using their own personal accounts, particularly those with restrictions such as those placed by Netflix on its users, to show movies and other video content" (p. 236). Association of Research Libraries et al. (2012) addressed the specific practice of creating streaming video course reserves and concluded that "[i]t is fair use to make appropriately tailored course-related content available to enrolled students via digital networks" (p. 14). Butler (2016) largely agreed, arguing that the use of videos in this way to teach themes, genres, or stylistic movements in film or literature classes should be considered a transformative fair use, and that all such uses have a strong claim to being a "non-transformative educational fair use" (p. 524). Besser et al. (2012) discussed the legal definition of "obsolete" under § 108(c) of the United States Copyright Act, which permits libraries to copy AV works for preservation, but not how this may or may not apply to other types of digitization activities.

METHODS

Qualitative research methods "typically answer questions such as, 'What is the meaning of…?' or 'What is the experience of…?'" and are appropriate when the main object of the research is to explore or investigate (Halpern, Eaker, Jackson, & Bouqin, 2015). The specific approach employed in this study is an adaptation of the applied thematic analysis methodology

developed by Guest, MacQueen, and Namey (2012), which was chosen because of its emphasis on "trying to answer research problems of a more practical nature" (p. 12).

Following approval by the University of Maryland College Park's Institutional Review Board, a purposeful sampling method was used to select participants who were adults 18 and older, were current or former instructors at the University of Maryland, and had used a library-provided educational streaming video resource within the previous five years. The researcher recruited participants through two means: by sending a recruitment email to liaison librarians and asking them to distribute it to instructors in their subject areas, and by directly emailing instructors who had requested materials available in Films@UM an in-house database of licensed educational streaming video content, through the library's electronic media course reserves service. Following the recommendation of Guest, Bunce, and Johnson (2006) that when working with a relatively homogenous population and utilizing a semi-structured or structured interview guide, 6-12 interviews is sufficient to "enable development of meaningful themes and useful interpretations" (p. 78), the researcher recruited 6-12 participants from each group. Because videos outside the scope of this study are available through the library's electronic media reserves service, all respondents were asked to complete a screening questionnaire (see Appendix A) to confirm their eligibility; this questionnaire was also used to collect demographic information, including departmental affiliation and frequency of educational streaming media resource use.

32 people responded to the screening questionnaire. The researcher identified 23 of these respondents as being eligible for the study and contacted them to schedule in-depth interviews, which Guest, Namey, and Mitchell (2013) have defined as one-on-one conversations utilizing open-ended questioning and inductive probing to get at depth, using a semi-structured, sequential interview guide (see Appendix B) which was reviewed by colleagues for bias, clarity, and flow and tested with a media librarian prior to IRB approval. 19 instructors agreed to participate in an interview in the their office, a private meeting room in the library, or online in an Adobe Connect meeting room, per the interviewee's preference. The interviews were conducted from January-July, 2016, and were audio-recorded and transcribed at a later date by a commercial transcription service. Each interviewee received a $50 payment as compensation for their time, which was disbursed in the form of cash immediately prior to the interview or, in the case of remote interviews, in the form of checks which were mailed to participants prior to their interviews. The interviews lasted between 30 and 63 minutes each, with an average length of 45:50. One interview was discarded because the interviewee did not appear to understand the purpose of the research study, and thus was not able to directly answer most questions, resulting in 18 interviews being included in the results. An iterative coding process resulted in the creation of 28 structural codes derived from the interview guide and 31 content-driven codes derived from interviewee responses, which were subsequently used for data analysis. The codebook, coded interview transcripts, interview metadata, and code frequency spreadsheets used in this project are available online through DRUM, the University of Maryland's digital repository (Horbal, 2017).

POPULATION

12 of the 18 instructors who participated in interviews were drawn from the group of people who responded to recruitment emails distributed by liaison librarians, and six were drawn from the group of people who responded to direct emails that the researcher sent to confirmed

users of Films@UM, the University of Maryland's in-house database of licensed educational streaming video content. Preliminary data analysis revealed that 9/12 instructors in the first group were Films@UM users, and that the two groups were broadly similar in terms of three other important variables: disciplinary background, with all 18 interviewees identifying themselves as being associated with colleges and schools in the arts, humanities, or social sciences; frequency of educational streaming video use, with all 18 interviewees indicating that they use educational streaming video resources at least once/academic year, and 17/18 indicating that they use them at least once/semester; and regularity of contact with the library, with all 18 interviewees referencing consulting a librarian or another member of the library staff either in person or remotely via email, phone, text, or some other means. For this reason, the researcher decided to treat all 18 interview transcripts as a single group. Final data analysis revealed that in line with the predictions of Guest et al. (2006), 84% of content-driven codes appeared in the first six interviews, and 97% appeared in the first 12 (see Fig. 1).
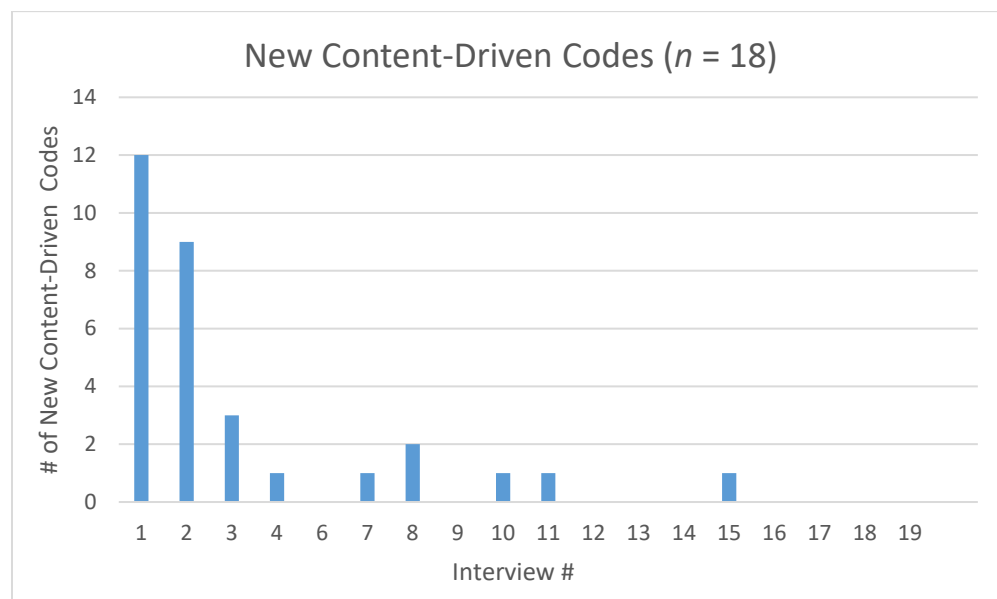

Fig. 1. Number of new content-driven codes which appeared in each interview included in this study's results.

This strongly suggests that data saturation was achieved for a single population of instructors with the following characteristics:

1. They come from disciplines in the arts, humanities, and social sciences.
2. Generally speaking, they are frequent users of educational streaming video resources.
3. They are "regular customers" of the library who routinely use library-provided resources and interact with library staff online or in person.

LIMITATIONS

Because of the characteristics of the population included in this study discussed above, the results may not be representative of instructors in the STEM disciplines, instructors who use educational streaming video resources only occasionally, or instructors who have limited

interaction with the library. Additionally, because only instructors who had used a library-provided educational streaming video resource within the previous five years were included in the study, the results may not be representative of instructors who exclusively use videos available from non-library sources. All of these limitations could be easily addressed by follow-up studies.

FINDINGS

Findings are presented below, organized according to the four main sections of the interview guide.

INSTRUCTOR USE OF EDUCATIONAL STREAMING VIDEO RESOURCES

Questions in the first section of the interview guide focused on why and how instructors use educational streaming video resources. All 18 instructors indicated that they use these resources for teaching purposes. Two instructors mentioned that they would also use them in connection with a lecture series, and two described also using them for research. One of these instructors noted that they recommend these resources to student researchers as well, although they're disappointed that more undergraduates don't follow through on these recommendations:

> I wish I could get the undergrads to use it more as a research tool, and the way that I know that they don't is when they turn in a paper and I ask for citations, I don't see that, and I just think it's a missed opportunity, but it's like the YouTube generation, Vimeo, and it's just so easy to go on and find stuff there, even though YouTube is obviously problematic for obvious reasons. (Interview 18, p. 5)

All 18 instructors provided pedagogical justifications for using educational video resources for teaching, which the researcher grouped into the following eight categories, with the corresponding code in parentheses:

1. Because they are superior to text for a given purpose (WHY-BETTER).
2. To increase student engagement with course themes and materials (WHY-ENGAGE).
3. To provide examples or demonstrations (WHY-EXAM).
4. As a tool for teaching education students how to work with video resources (WHY-META).
5. To give students an alternative to seeing a performance in person (WHY-PERF).
6. For of their subject matter (WHY-SUB).
7. As an object of inquiry in their own right (WHY-TEXT).
8. As part of a conscious effort to use a variety of different types of materials (WHY-VAR).

No one reason dominated, and more than half of the instructors provided justifications which fell into multiple categories. As shown below in Figure 2, these responses are typical of the perceived benefits of streaming video identified in the literature:
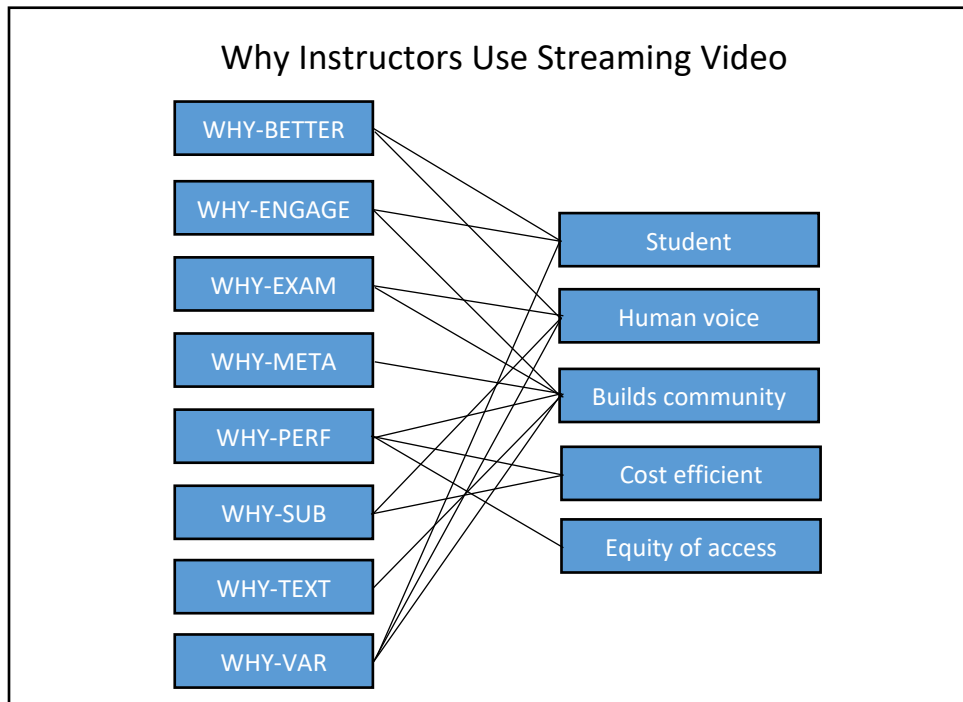
Fig. 2. How codes used in this study to describe reasons instructors gave for using educational streaming video resources in their teaching relate to the perceived benefits of using streaming media in higher education identified in the literature, as summarized by Osteen et al. (2011). Their two remaining categories of perceived benefits, "flexibility" and "ability to track," correspond to the reasons instructors in this study gave for assigning educational streaming video resources as outside-of-class viewing instead of using them in class and to the category of special features that they said they found most useful, technical means of determining whether or not students viewed videos.

All 18 instructors responded to a question about whether they use educational streaming video resources in their entirety, or just in portions. Most interviewees seemed to regard using videos in their entirety as the default option, but 15/18 indicated that they would consider using just portions of videos if the situation warranted it. The most common reason given was concern about limited class time.

13 instructors described the classes they use educational streaming videos in. In each case, the instructor was teaching within their discipline. Only three instructors indicated that they had used educational streaming video resources in connection with classes taught entirely online.

12 instructors described barriers to using educational streaming video resources, with a majority (7/12) noting that the necessity to use a proxy link and/or for users to authenticate themselves through a virtual private network was confusing to them and/or their students. Three instructors each described not having time to search for resources, not knowing how to find things on the library website, and buffering and other technical difficulties with trying to play educational streaming video resources in the classroom as barriers. Additional barriers described by no more than one instructor each include having too many resources to choose from, feeling locked into a syllabus, the prevalence of outdated videos in educational streaming video

databases, the incompatibility of resources with mobile devices, and students not having easy access to a computer.

12 instructors discussed how conducive university facilities are or are not to using video resources. 6/12 described educational streaming video resources as being preferable to resources in physical formats such as DVD or VHS for in-class use. In the words of one instructor:

> The streaming's an easier alternative because it's harder to come by the technology, and it's there, but it's always been sort of in the technology closet, and you have to get the key, and you have to call someone over, as opposed to me just hooking my computer up and having it ready to go. (Interview 13, p. 7)

The remaining instructors indicated that they were ambivalent and discussed difficulties they had experienced with streaming video technology. As one instructor put it, "there are fewer technology problems with putting a DVD in and pushing play than trying to get, again, online access to stream while you're in a class or something" (Interview 10, p. 22).

All 18 instructors indicated that when using educational streaming video resources for teaching, they assign them to their students for outside-of-class viewing. A strong majority (13/18) noted that they sometimes show videos in class as well, but 2/3 described the primary benefit of these resources as being the freedom they afford them to utilize limited class time for other, more important things than watching videos. As one instructor put it, "I don't ever show any long films in my class. We have too much else to do in the class. So I only use it for homework assignments" (Interview 6, p. 1). Two instructors flipped this construction around, putting more emphasis on the unlimited amount of time that is available outside of class. As one explained, "class moves very quickly, maybe for an hour and 15 minutes, and I think they—I really like them to get deep into material, so I would much rather have them spend time outside of the course" (Interview 4, p. 2). Another noted:

> I don't know if this is relevant but I would like to reiterate that students' ability to go back and review parts of the film is like absolutely essential and that I think it's really detrimental to trying to teach with film if students have no way of going back. You wouldn't assign a textbook reading and let them not look at the textbook after that week. It's ridiculous, so I would say that that's the most important thing to me just pedagogically in terms of the soundness of using film. (Interview 19, p. 12)

One instructor went so far as to suggest that they consider showing videos in class to be "bad pedagogy":

> I no longer show films in their entirety in my classes. I feel like it's bad pedagogy for the classes that I'm teaching. Not that I don't think that it's ever appropriate, but, like, when I can give them the movie to watch outside of class and come to class and spend the entire class period then discussing it, it tends to let us cover more material instead of having to spend two class periods watching a movie and then talking about it. (Interview 10, p. 1)

Another instructor described using outside-of-class viewing assignments as a backup or supplement to using videos in class:

I know how they multitask, and that for me just doesn't fly. I want them—because even getting them to download something, print it out, and read it line for line is really hard. So basically that's why I show them in class. And then if, for example, they're absent or they have—it's available. (Interview 7, p. 10).

One instructor explained that not being able to use streaming video for outside-of-class viewing assignments would be a "nightmare":

We would probably—it would probably be bit of a nightmare, because we would try to schedule a time when everyone could view together, which, even if I had a class of six students when I taught an adaptation class, and I couldn't make that happen for the students, let alone we had a class of 75. So, if it didn't exist, they probably would have either had to find things on their own, hope that we could get access to things on places like YouTube or somewhere that maybe someone had uploaded something that might disappear at any moment, or try to have the students paying for more things, which as we're moving toward trying to make it to go green, trying to have students buy fewer books, and save the money where they can, I think it would have turned students away from the class because they would have felt that it wasn't accessible to them. (Interview 14, pp. 2-3).

Of the 11 instructors who answered a question about whether educational streaming video resources were central or supplemental to the classes they used them in, 10/11 said they were central to at least some.

17 instructors talked about how they determine whether or not students have viewed videos and/or how they assess student learning based on video content. Most didn't differentiate between the two concepts, seeing them as part of the same process; however, 10 instructors described using or being interested in using technological means to specifically determine whether or not students viewed films. The only other special features discussed by instructors were captions/subtitles, transcripts, and clip-making tools, but while each was mentioned favorably at least once, none was mentioned by more than three instructors, and more than a quarter of instructors (5/18) specifically mentioned that they do not use special features.

16 instructors shared their impressions of how satisfied their students were with the educational streaming video resources that they viewed in class and/or were assigned to watch outside of class. 8/10 who characterized the general response of the students in positive or negative terms described it as being positive.

HOW INSTRUCTORS DISCOVER EDUCATIONAL STREAMING VIDEO RESOURCES

Questions in the second section of the interview guide focused on how instructors identify educational streaming video resources to use. All 18 instructors talked about how they discover new resources, with 16/18 indicating that they use popular resources such as public films screenings or professional resources such as conferences, and 15/18 instructors indicating that they learn about new resources from their colleagues. Additionally, six instructors mentioned recommending educational streaming video resources to colleagues themselves.

12 instructors mentioned using the library to discover new resources, with 7/12 indicating that they search library-provided streaming video databases, 6/12 indicating that they search the library catalog, and 3/12 indicating that they had asked a librarian for recommendations. 13

instructors talked about how they locate copies of specific videos that they already know they want to use, with 7/13 mentioning searches in the library catalog, 5/13 mentioning consultations with a librarian, and 2/13 mentioning that they sometimes or always searched for videos in Google, bypassing library-provided discovery tools. Figure 3 below illustrates the ratio of library to non-library resources instructors use to discover and locate educational streaming video resources:
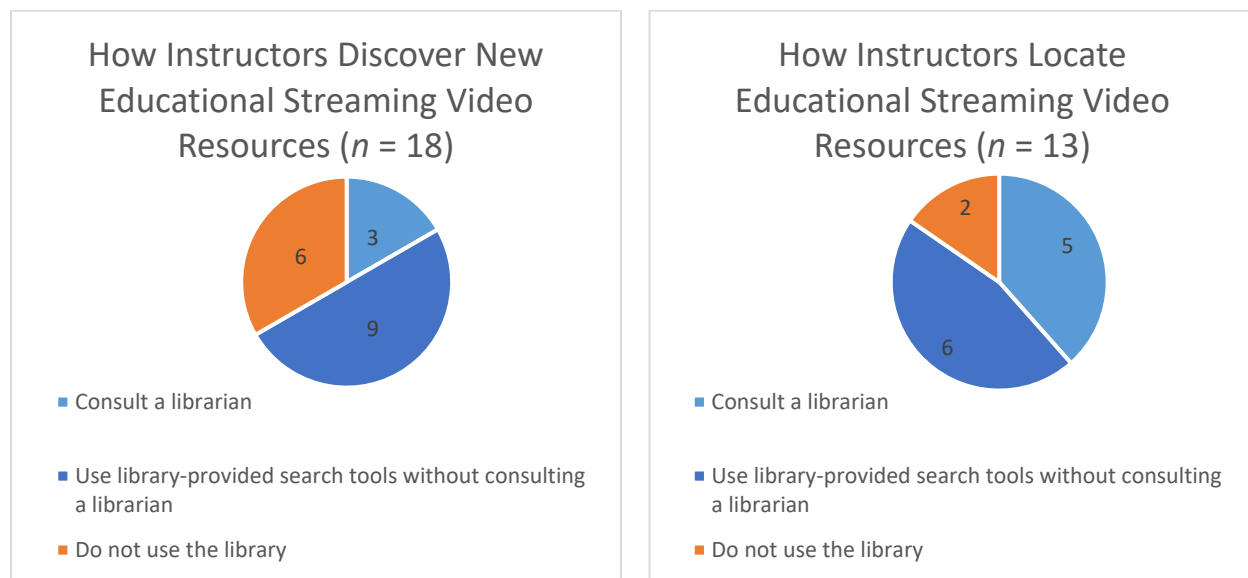

Fig. 3. How instructors in this study discover new educational streaming video resources and locate videos that they already know they want to use.

14 instructors discussed how libraries should or shouldn't market the educational streaming video resources in their collections and related services, with 10/14 suggesting that emails from a librarian are effective. Although instructors offered a variety of suggestions about what specific attributes would make such emails effective, none were mentioned more than once. 5/14 instructors discussed the possibility of the library creating a video recommendation service like the one offered by the company Netflix, but opinions were mixed about whether nor not this would be worth pursuing. One instructor suggested that the library "can't get at the intellectual nuance that you're trying to bring forward for your students" (Interview 9, p. 8), and another suggested that such a service would be inferior to the catalog records that the library already provides. Other instructors indicated that such a service could help them identify more up-to-date alternatives to the titles they use, and that it might encourage students to use more videos. Two instructors each mentioned that it would be effective for libraries to market their general willingness to connect instructors to useful resources, and that it would be helpful to see what videos other instructors were using.

10 instructors talked about how long they have been using the educational video resources that they use, with responses ranging from noting that they were using the resource they were discussing for the first time to indicating that they had been using it for about ten years, dating back to before it was available in streaming video format. 11 instructors talked about the factors which influence their decision whether or not to continue using a given video resource. 7/11 indicated that video resources may need to be replaced if they become dated,

mostly for reasons related to student engagement. As one instructor explained, "it's not a good idea to show things to students that are so dated that they can't relate to it" (Interview 1, p. 16).

INSTRUCTOR SATISFACTION WITH EDUCATIONAL STREAMING VIDEO RESOURCES

Questions in the third section of the interview guide focused on instructors' level of satisfaction with the educational streaming video resources that they use. 14 instructors talked about their overall level of satisfaction with these resources, and all 11 who described it in positive, negative, or neutral terms indicated that in general, they are satisfied. Six instructors discussed the number or variety of library-provided educational video resources available, with 5/6 indicating that they would like to see the library acquire more educational videos in streaming video form. The sixth instructor mentioned the "paradox of choice" as it applies to educational streaming video resources:

> The thing that I've seen, I think, over the course of my own lifetime is, when you have a couple things available, you use them. When you have 10,000 things available, you almost don't use them because you just get inundated with options, and you end up in that—what's that book that came out, *The Paradox of Choice*? Every time you use one thing, you have that opportunity or you have that de-selection of 1,000 other things and that feeling of maybe there's something else that should be. You're lost in that deliberation mode, and so a lot of people just tune it out, and they say, "well, I have these three DVDs I invested in." (Interview 3, p. 2)

13 instructors talked about how educational streaming video resources generally compare to commercial alternatives such as Netflix, Amazon Instant Video, iTunes, or YouTube. Instructors found the two types of resources roughly equivalent, with 4/9 who indicated a preference describing educational streaming video resources as superior to commercial alternatives, 3/9 describing them as comparable, and 2/9 describing them as inferior. One instructor noted that although they prefer educational streaming video resources, YouTube is good for short clips and topics too current to yet be the subject of a documentary. Another instructor noted that they were troubled by commercial alternatives:

> It's like having Pepsi on the screen. It's the same thing. Little by little, I mean, I don't know where you're going with this study, but I'm just going to say this on the record, little by little we give ourselves to corporations, and then soon Netflix is going to tell me how I'm going to teach my class and what films I can show and not show. (Interview 7, p. 16)

Eight instructors talked about whether or not they had ever thought about asking their students to subscribe to Netflix or an equivalent commercial streaming video service so that they could watch one or more assigned videos in the course of making these general comparisons. 3/8 indicated that they had already done this in the past, and 1/8 indicated that they wouldn't ever consider do so. The remaining 4/8 indicated that it would depend, with the cost to their students being the primary consideration. As one instructor put it:

I have not assigned a textbook in years just because I try to be aware of the amount of money that students have to spend on textbooks, and I don't want them to buy even a used textbook that we only use a portion of—and I have to get them to buy like three different books to cover the topics—and so that's why I would be hesitant initially to try to say, well, you have to pay for this book. Then if I'm not having them pay for a textbook, maybe that would balance out if I said, okay, well you don't have to pay for a textbook which was more expensive, but you do need to purchase this Netflix subscription. (Interview 16, p. 15)

15 instructors discussed how educational streaming video resources compare to commercial video resources that they are familiar with specifically in regards to how easy it is to identify resources to use. Instructors found the two types of resources roughly equivalent in this respect, with 4/12 who indicated a preference describing educational streaming video resources as superior to commercial alternatives, 3/12 describing them as comparable, and 5/12 describing them as inferior.

17 instructors discussed how educational streaming video resources compare to commercial video resources that they are familiar with specifically in regards to audio/video quality. Instructors found the two types of resources roughly equivalent in this respect, with 5/14 who indicated a preference describing educational streaming video resources as superior to commercial alternatives, 6/14 describing them as comparable, and 3/14 describing them as inferior. Of possible note is the fact that many instructors seemed to be thinking specifically of YouTube when drawing this comparison. As one explained, "I think generally speaking the quality of the stuff that's streamed from UMD is better than the quality that I can get on YouTube" (Interview 15, p. 16). This instructor also observed that this is an "apples and oranges" comparison:

So it's hard to compare a commercial thing for something that was done for educational purposes. I mean, same with *The Eumenides*, or *The Furies* I guess it's called in that National Theater Production. The values of it are really good for what it is. And for example, *The Furies* is a really nice video, the whole *Oresteia*, because there's three parts to that, because it was actually—it wasn't filmed from the back row on an i—right, it was really filmed. (Interview 15, p. 11)

All 18 instructors discussed how educational streaming video resources compare to commercial streaming video resources that they are familiar with specifically in regard to terms of use/licensing terms. Instructors expressed a clear preference for educational streaming video resources in this respect, with all 10 who indicated a preference describing them as superior to commercial alternatives. In almost every instance, the reason cited was the assumption that the library had already taken care of obtaining all necessary rights for them to do whatever they wanted to with the video. As one instructor put it:

One of the reasons why I prefer to use the library resources rather than going to YouTube or another online source is that I feel safe in the assumption that the library—that this is legal, that it is meant for use for a class to watch, for multiple viewing, and that those kind of legal issues are sort of taken care of by the fact that I'm using it through the library rather than online. (Interview 13, p. 12)

Six instructors noted that they don't know or think about terms of use/licensing terms. In the words of one instructor:

> Yeah, I figure nobody is going to care if I show a Netflix film to 25 students or whatever. It probably is technically prohibited but so is making copies out of or so many pages of copies out of books, which people do all the time. There's always stuff like that. […] I sort of ignore it because from a moral standpoint, I think using it for educational purposes, it's doing a good thing and, therefore, I shouldn't be punished for it, I guess. (Interview 12, pp. 7-8)

14 instructors discussed how educational streaming video resources compare to commercial video resources that they are familiar with specifically in regards to usability. Instructors expressed a clear preference for commercial streaming video resources in this respect, with 5/9 who indicated a preference describing them as superior to educational alternatives, 3/9 describing them as comparable, and only 1/9 describing them as inferior. There was no consensus about why, but reasons cited included commercial streaming video resources being easier to share, featuring better subtitling, being easier to access, and being more intuitive. As one instructor put it:

> I would say in terms of usability, it's not as intuitive as the commercial. I don't think it's inherently harder. It's just students know how to use commercial things. They have to be taught how to use the library things. (Interview 19, pp. 8-9)

12 instructors discussed how educational streaming video resources compare to non-streaming video resources that they are familiar with. Instructors expressed a clear preference for educational streaming video resources in this respect, with 10/12 who indicated a preference describing them as superior to non-streaming alternatives, and the remaining 2/12 describing them as comparable. In almost every instance, the reason cited was that streaming video resources are easier to access and share. In the words of one instructor, "the non-streaming, it's over now. It's too complicated" (Interview 11, p. 14). Two instructors did note that educational streaming video resources don't always have the same number of special features as non-streaming alternatives, though.

13 instructors discussed how educational streaming video resources compare to non-streaming video resources that they are familiar with specifically in regard to audio/video quality. Instructors expressed a slight preference for non-streaming video resources in this respect, with 5/11 who indicated a preference describing them as superior to educational streaming video alternatives, 5/11 describing them as comparable, and only 1/11 describing them as inferior. Of possible note is the fact that many instructors seemed to be taking the quality of the internet connection in their classroom into account when making this comparison. As one explained:

> I think they're comparable. I tried to watch everything and stream myself just to see what it was like because I was curious. I had not done that before through these resources, and it was—I thought it was great, you know? I think it's—your streaming is only as good as

the internet access you have. So if you're streaming, and I stream off of—I was in my office, so I would stream off of the hard Ethernet line, so it was great. (Interview 2, p. 13)

Eight instructors discussed how educational streaming video resources compare to non-streaming video resources that they are familiar with specifically in regard to usability. Instructors expressed a slight preference for educational streaming video resources in this respect, with 3/6 who indicated a preference describing them as superior to non-streaming alternatives, and the remaining 3/6 describing them as comparable.

Finally, two instructors discussed non-streaming video resources specifically in regard to how easy it is to identify resources to use, and eight discussed them specifically in regard to terms of use/licensing terms, but none were able to draw a comparison between them and educational streaming video resources in either respect.

HOW ESSENTIAL INSTRUCTORS WHO USE EDUCATIONAL STREAMING VIDEO RESOURCES CONSIDER THEM TO BE TO THEIR WORK

Questions in the final section of the interview guide focused on how essential instructors who use educational streaming video resources consider them to be to their work. 17 instructors discussed the circumstances under which they would consider using alternatives to educational streaming video resources. As shown in Figure 4 below, a strong majority indicated that they wouldn't use a non-streaming alternative if the same title was available in streaming video form, and that more than half wouldn't knowingly use a non-library alternative if the same title was available through the library in streaming video form:
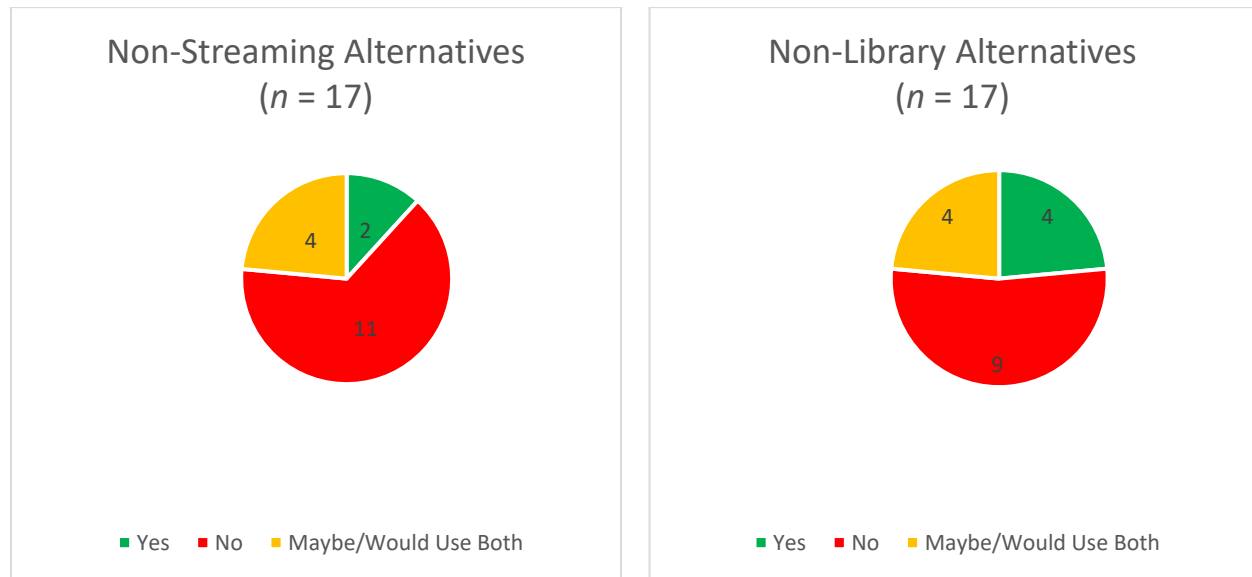

Fig. 4. Whether or not instructors would consider using a non-library or non-streaming alternative to an educational streaming video resource if the same title was available in both forms.

4/17 instructors indicated that they might want to use a non-streaming alternative as a backup plan in case of technical difficulties, and one instructor each indicated that they preferred to use DVDs for in-class screenings, and that they might want to use bonus features only

included on the DVD release of a video. The four instructors who indicated that they might use a non-library alternative in addition to an educational streaming video resource explained that they would do so to give their students multiple options for completing an outside-of-class viewing assignment. The four instructors who indicated that they would use a non-library alternative instead of an educational streaming video resource explained that they would so in order to bypass the need for them or their students to log in to library resources with their university ID and password.

3/9 instructors who indicated that they would not knowingly use a non-library alternative to an educational streaming video resource explained that the reason why was the tendency of videos to disappear from YouTube and other commercial resources. 2/9 indicated that it was because library resources provided what one instructor called a "clean site medium" free of advertisements and other distractions:

> Let's say I'm watching something on *The Diary of Anne Frank*, and it's a school board hearing about *The Diary of Anne Frank*. On the right-hand side, especially depending upon what that student has been accessing, they're going to have things like Holocaust denial videos: "Why Anne Frank was a Liar," and just other distracting things going on the right-hand side of this thing. It might be ads in the middle of this really serious talk about Anne Frank. Down below, you're going to have the usual lunatic fringe making comments. I'm inserting—now on one hand, you could say, well, that's great. That's like the ALA's thing, right? Like total intellectual freedom to hear and to even express yourself, but I'm not sure from sort of a—not that I'm an expert on like discourse with a big D, speech communities and stuff, how it works, but I feel like I'm inserting them into a discourse community that's dominated by particular voices. (Interview 3, pp. 14-15)

Other instructors cited a desire to protect their students from violating copyright and to teach students how to use library resources as reasons not to use non-library alternatives.

The interview guide concluded with a series of hypothetical questions whereby the researcher asked instructors to walk him through their process of forming a backup plan in the event that the educational streaming video resource they wanted to use had ceased to be available prior to the beginning of the semester, a week before they wanted to use it, and immediately before the class period during which they wanted to use it. Figure 5 below summarizes the responses to these questions:

Fig. 5. How instructor backup plans for what to do if the educational streaming video resource they want to use ceases to become available change with different amounts of advance notice.

One result of note is that instructors were nearly evenly split about whether or not they would consider using a different title if the streaming video resource they wanted to use ceased to be available: 9/17 indicated they would, provided they received at least a week's advance notice, but 8/17 suggested that they would sooner switch to a non-streaming or non-library alternative or even drop the video component from their class entirely before ever considering this option, regardless of how much advance notice they received. Another is that 7/17 instructors expressed confidence in their ability to quickly identify a backup plan in a non-library resource if they found out they needed to do so right before their planned use, compared to only 2/17 who would turn to the library.

DISCUSSION

As outlined in the introduction, the primary goal of this project was to fill a gap in the literature by describing how academic library patrons actually use educational streaming video resources. Seen through that lens, the most significant findings might be that all 18 instructors in this study use this type of resource for teaching, with no more than two using them for anything else, and that 2/3 of these instructors identified the primary benefit of streaming video as being to free them up to make better use of limited class time by enabling them to assign educational videos to their students as outside-of-class viewing. Combined with the finding by Knab et al.

(2016) that streaming video usage statistics appear to be predominantly driven by faculty and classes, this provides academic libraries with a baseline set of assumptions they can use to make more informed decisions about which educational streaming video resources to invest in and how to market them.

Drilling deeper, this study sheds light on which acquisition models academic libraries might want to consider pursuing as well. First, the results suggest that from an instruction support standpoint, the "in-perpetuity" (whereby libraries permanently add streaming video titles to their collections) licensing models discussed by Handman (2010) and others may not be preferable to fixed term licenses, or at least not worth a substantially higher cost. The facts that a strong majority of instructors who discussed the subject indicated that videos need to be replaced when they become out of date and that 9/17 instructors said they would consider switching to a different title if the educational streaming video resource they wanted to use ceased to be available as long as they were given at least a week's advance notice suggest that just because a title is in high demand at the time it is licensed or purchased, it might not be a few years later. This could also be interpreted to support the finding of Erdmann et al. (2014) that UDA plans for acquiring educational streaming video resources offer better value than purchased streaming video collections. Finally, the lack of interest that instructors in this study showed in special features like captions/subtitles (although it should be noted that there may be legal and/or moral reasons beyond the scope of this study to consider this particular feature), transcripts, and clip-making tools area a strong indication that such things aren't worth paying a premium for, all of which may be reasons for libraries with the technical ability to do so to consider hosting their own content instead of paying a vendor to do it for them.

Like other studies discussed in the literature review, this one found that instructors clearly prefer educational streaming video resources to non-streaming alternatives; in fact, the only reasons to continue acquiring media in physical formats from an instructor perspective seem to be providing them with a backup plan in case of technical difficulties, and in a very small number of cases, giving them access to DVD bonus features. Although King (2014) and others articulate many excellent reasons why libraries should continue to acquire such materials anyway, this is definitely something for librarians to keep in mind when preparing budgets and communicating with stakeholders.

This study also echoed the surveys of faculty users of moving images discussed in the literature review in its finding that instructors rely more colleagues and popular and professional resources to discover new educational streaming video resources than the library, although 2/3 of the instructors reported that they do use librarians or library-provided search tools for this purpose. It may be more telling that within the subset of library resources, consulting a librarian was second to catalog and database searches for both discovering new resources and locating titles that the instructor already knew they wanted to use, but that it was closer in the case of the latter. This might be evidence that there is room to improve how effective library search tools are at locating educational streaming video resources, especially when considered alongside the findings that only 2/17 instructors indicated they would search for another library resource if they discovered that the one they wanted to use had ceased to be available right before the class period they wanted to use it in (suggesting a lack of confidence in their ability to find something quickly) and that some instructors use Google to bypass library discovery tools.

Finally, the most positive result of this study for academic libraries is likely that educational streaming video resources compare favorably to commercial alternatives in most respects, with more than half of the instructors indicating that they wouldn't knowingly use a

non-library alternative if the same title was available through the library in streaming video form. This suggests that Otto's assertion that "it is likely that YouTube is far and away the richest source of moving images for coursework" (2014, p. 125) represents more of a marketing opportunity for academic libraries than it does an existential crisis. Although this study did not unearth any startling new ideas for how to communicate with instructors about library resources and services, it does validate the approach of engaging in outreach via email, which Erdmann et al. (2014) found can have a significant impact on usage. It also identified a number of perceived strengths of educational streaming video resources relative to commercial alternatives that libraries can exploit, including instructors' assumption that neither they nor their students need to be concerned about copyright when using them (although this might also represent a need for more copyright education), a stable library of titles that won't suddenly disappear, and a "clean site medium" free of ads and other distractions.

CONCLUSION

Farrelly and Hutchinson (2014) are almost certainly correct that a "tipping point" has been reached and that the age of streaming video has already arrived, whether libraries are ready for it or not. The good news is that this study provides clear evidence that instructors see library-provided educational streaming video resources as highly valuable, and that they will continue to do so far into the future. More work needs to be done to explore the use of streaming video resources by instructors outside the scope of this study as described in the limitations section; other directions for future research include investigating the use of streaming video resources by students, investigating the use of such resources in online classes, and developing a finer-grained understanding of the value propositions represented by different acquisitions models for streaming video, especially UDA plans. In the meantime, though, advocates for video as an important part of academic library collections will hopefully rest easy in the knowledge that even in a time of rapidly-changing delivery models, their case is as strong as ever.

APPENDIX A. SCREENING QUESTIONNAIRE

Q1. Consent Form

Q2. What is your name?

Q3. What is your email address?

Q4. What department(s) at the University of Maryland are you affiliated with?

Q5. Which of the following streaming video databases have you used in connection with your teaching, research, and/or creative activities at the University of Maryland in the past five years? Select all that apply. More information about these resources can be found by right-clicking on the name of the database and opening the link in a new window or tab. If you think you may have used one or more of these resources, but don't know which one(s), please email Andrew Horbal at ahorbal@umd.edu
- BBC Television Shakespeare Plays
- Counseling and Therapy in Video

- Dance in Video
- Education in Video
- Ethnographic Video Online
- Films@UM
- Filmakers Library Online
- Films on Demand: Career & Technical Education Master Collection
- Films on Demand Master Academic Collection
- LGBT Studies in Video
- Naxos Video Library
- Opera in Video
- Theater in Video
- World History in Video
- Other (please describe)
- I have not used any of these resources
- I have used at least one streaming video database, but I don't know which one(s)

Q6. How frequently, on average, do you use these resources in connection with your teaching, research, and/or creative activities at the University of Maryland?

APPENDIX B. INTERVIEW GUIDE

INTRODUCTION

Thank you for agreeing to participate in this project! As stated in the consent form you signed, I am researching instructor use of and preferences for educational streaming video resources, which are defined as titles that contain information useful for educators but, due to their specialized nature, are sold at higher prices than most individuals can afford. The purpose of this research project is to determine what factors affect instructor use of and satisfaction with educational streaming video resources, and how dependent instructors are on them.

WHY AND HOW DO INSTRUCTORS USE EDUCATIONAL STREAMING VIDEO RESOURCES?

The first section of this interview will focus on why and how you use educational streaming video resources. In the screening questionnaire you filled out, you indicated that you use the following resources [PROVIDE LIST]. Please list the specific titles available through this resource that you use. In what ways do you use them? *Prompts: Do you use them for teaching? For research? For creative purposes? Do you use these titles in their entirety, or just portions of them?* FOLLOW-UP QUESTIONS:

- Which classes do you use these resources in? Which classes *don't* you use them in? Why?

- Do you use these resources in class, assign them as outside-of-class viewing, neither, or both? Why? Are they central to your class or supplemental? FOLLOW-UP QUESTIONS:

o How do you determine whether or not students have viewed the video(s) you assign to them?
o How do you assess student learning based on video content?
o How satisfied are your students with the videos they are assigned to watch? *Prompts: Have you received any feedback from your students about the resources that you use? What did they say?*

HOW DO INSTRUCTORS WHO USE EDUCATIONAL STREAMING VIDEO RESOURCES DISCOVER THEM?

Thank you for your responses! In the next section of the interview, I'd like to discuss how you identify educational streaming video resources to use. Please describe how you decide which educational streaming video resources to use. *Prompts: Do you use library resources such as the library catalog, subject guides, or library staff? What do you like about them? What do you dislike? Are there professional resources (journals, newsletters, advertisements, conferences, etc.) that inform you about educational streaming video resources you could use?*

How did you first become aware of the educational streaming video resources you currently use and have used in the past? *Prompts: Did you learn about educational streaming video resources from colleagues? Which colleagues? Which videos? Do you use videos that you watched as a student? What classes did you watch them in? Have you discussed using these videos with the instructors who assigned them to you?*

How long have you been using the educational video streaming video resources you currently use? What factors influence your decision to continue using the same resources, or to look for new resources?

HOW SATISFIED ARE INSTRUCTORS WITH THE EDUCATIONAL STREAMING VIDEO RESOURCES THEY USE?

Thank you for your responses! In the next section of the interview, I'd like to discuss your level of satisfaction with the educational streaming video resources that you use. In general, how satisfied are you with these resources? How do they compare to any commercial streaming video resources that you might have used, such as Netflix, Amazon Instant Video, iTunes, or YouTube? How do they compare to any non-streaming video resources you might have used, such as Blu-Ray discs, DVDs, or VHS tapes? FOLLOW-UP QUESTIONS:

● How satisfied are you with the audio/video quality of these resources? How does the audio/video quality compare to any commercial streaming video resources you might have used, such as Netflix, Amazon Instant Video, iTunes, or YouTube? How does the audio/video quality compare to any non-streaming video resources you might have used, such as Blu-Ray discs, DVDs, or VHS tapes?

● How satisfied are you with the usability of these resources? This might include how easy they are to access, special features like captions or clip-making tools, or the layout and design of the resources. How does their usability compare to any commercial streaming video resources you might have used, such as Netflix, Amazon Instant Video, iTunes, or

YouTube? How does their usability compare to any non-streaming video resources you might have used, such as Blu-Ray discs, DVDs, or VHS tapes?

- How satisfied are you with how easy it is to identify resources to use? How does this compare to your experience with any commercial streaming video resources you might have used, such as Netflix, Amazon Instant Video, iTunes, or YouTube? How does it compare to your experience with any non-streaming video resources you might have used, such as Blu-Ray discs, DVDs, or VHS tapes?

- How satisfied are you with terms of use/licensing terms of the resources that you use? How do these terms compare to those of any commercial streaming video resources that you might have used, such as Netflix, Amazon Instant Video, iTunes, or YouTube? How do these terms compare to those of any non-streaming video resources you might have used, such as Blu-Ray discs, DVDs, or VHS tapes?

HOW ESSENTIAL DO INSTRUCTORS WHO USE EDUCATIONAL STREAMING VIDEO RESOURCES CONSIDER THEM TO BE TO THEIR WORK?

Thank you for your responses! In the final section of the interview, I'd like to try to capture how important you consider the educational streaming video resources you use to be to your work. My first set of questions are about alternatives to the resources you use:

Are *non-streaming* alternatives to the resources you use available to you? How likely are you to consider using them? If you have used them before, how do they compare them to the streaming video resources you have also used?

Are *non-library* alternatives to the resources you use available to you? How likely are you to consider using them? If you have used them before, how do they compare to the streaming video resources you have also used?

My last set of questions are about what you would do if the resources you use ceased to be available:

Let's assume you found out *before the beginning of the semester* that one of the resources you use has ceased to be available. What would you do? Please walk me through the process of identifying an alternative. *Prompts: Would you use one of the non-streaming alternatives you mentioned? Would you use one of the non-library alternatives you mentioned?*

Let's assume you found out that one of the resources you use has ceased to be available *a week before you were planning on using it*. What would you do? Please walk me through the process of identifying an alternative. *Prompts: Would you use one of the non-streaming alternatives you mentioned? Would you use one of the non-library alternatives you mentioned?*

Let's assume you found out that one of the resources you use has ceased to be available *right before the class period when you were planning on using it*. What would you do? Please walk me through the process of identifying an alternative. *Prompts: Would you use one of the non-streaming alternatives you mentioned? Would you use one of the non-library alternatives you mentioned?*

WRAP-UP QUESTION

Thank you for your time and for sharing your opinions on this subject! Before we end the interview, is there anything else you would like to add?

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