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NYU Moving Image Archiving & Preservation

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I. Executive Summary

This white paper is a report on the state of moving image collections in libraries, and highlights issues of stewardship, obstacles to change, and possible solutions for these legacy collections. It is part of the larger Moving Image Specialists in Libraries (MISL) project, which was funded by IMLS’s initiative to transform 21st century libraries into leadership institutions that meet upcoming immense and pressing preservation and access needs. The project is undertaken by NYU’s Moving Image Archiving & Preservation program, and is led by the program’s Director Howard Besser. Derived from a series of focus groups (one with Library Deans and Directors, and others with audiovisual collection managers and with preservation specialists) and over two dozen in depth interviews with working professionals on the challenges faced by moving image specialists in libraries, the report is intended to provide library Deans and Directors with:

· a review of the state of legacy moving image collections in libraries
· a summary of noteworthy findings from our interviews with academic and research librarians working with moving image collections
· the implications of these findings for academic and research institutions broadly, and library Deans and Directors in particular
· research areas warranting further investigation.

It strives to help answer the following questions: What is the status of moving image and sound collections in academic libraries? What needs to be changed? What are the obstacles to these changes?

While this paper was designed to address audiovisual materials in legacy analog formats, many of the issues raised are quite germane to born-digital audiovisual materials (as issues such as rapid format obsolescence and lack of good tools for automatic indexing are just as present with digital as with analog audiovisual formats).

Increasingly, academic libraries hold moving image and sound material throughout their collections. This material is often of a unique or rare nature, and may be found in both library special collections as well as in general collections (works having been acquired when mass-produced, but which are now both orphaned and held by very few libraries). For instance, within the subset of our interviewees, archival collections with important audiovisual materials included the films and papers of an esteemed experimental filmmaker, including the rights to this material; the papers of distinguished authors, among which exist rare video interview materials; and historical collections with rare but eminently popular video clips, including recordings of species at one time considered extinct. At the same time, significant gains in the development of best practices for film, audio, and video preservation, moving image and sound collections have been made. Yet libraries are often unprepared for the stewardship of audiovisual
material, and the proper care of these materials goes neglected.

There are several reasons for this. To start, the physical characteristics and technological dependencies of both analog and digital audiovisual materials render them highly susceptible to degradation, loss, and obsolescence—more so than paper, and on a much shorter timeline. Moving image and sound materials demand specialized attention, yet even large libraries with established conservation departments lack the expertise, methods, and resources to address the preservation requirements of their film, video, and audio holdings. Without any background whatsoever, staff who handle collection development and/or circulation of audiovisual materials are frequently called upon to lead preservation and conservation efforts. This lack of staff expertise is perhaps the greatest threat to the long-term persistence of moving image and sound collections in libraries. A 2011 private research survey\(^1\) reports that half of the academic libraries surveyed devote one or less FTE to dealing with audiovisual materials in any capacity whatsoever. Moreover, library staff members charged with the stewardship of audiovisual collections—or those who find themselves in the role de facto—are often lacking appropriate training and are struggling to learn on the job. Identified gaps in training included format identification; triage and preservation prioritization; orientation in the digital landscape, including analog-to-digital transfers, and the recognition of file formats, to name a few. (Honing in further on needed skillsets would be of benefit to the field, and is a suggested topic for future research.)

This absence of training can be detrimental to collections: lack of familiarity with older and obsolete media formats may lead to the establishment of misguided reformatting priorities, with at-risk materials left unaddressed until it may be too late. Furthermore, the dearth of expertise around complex technologies, old and new, can induce a culture of fear and reticence around the adoption of these technologies. Many library staff noted that lack of training in these areas could be offset by technical- and preservation-related conferences, workshops, and other professional development opportunities, and some felt that attendance at such conferences is sometimes unsupported by library administration and/or of lesser priority than opportunities dedicated to other aspects of the field, like collection development.

The rapid shift in technological advancement is another important consideration in the care of moving image and sound materials. Format obsolescence and changes in campus technological infrastructure render the delivery of analog media to faculty and students more and more difficult. Faculty often request classroom instruction materials on outmoded audiovisual formats—particularly VHS—that are deteriorating and often irreplaceable. This problem is exacerbated as corresponding playback equipment is removed from classrooms, and further still, as intellectual property law is not clear about what kind of analog-to-digital

media reformatting can legally be done. (A separate NYU project, Video At Risk,\(^2\) is examining legalities around inter-library loan and replacement reformatting of out-of-print works.)

Rapid technological advancements have brought about other changes in the field. For instance, the last few years have seen academic libraries increasingly adopt the role of publisher, enabled by the emergence of new digital platforms, the development of institutional repositories, as well as the Open Access movement. More than ever before, libraries are creating, promoting, distributing and preserving scholarly, educational and regional materials of varying formats, including audiovisual materials and electronic texts. The advent of platforms like iTunes University or even Coursera, enables libraries to promote and disseminate AV content produced at the university—with class lectures and public events, like talks and panel discussions among the most common—both to an internal audience (the students and faculty on campus) and an external audience (the rest of the Internet-using world).

Along with staffing—budget shortages and lack of funding were identified as primary obstacles to meeting the needs of moving image and sound collections. An institution’s baseline budget can often only support basic operations, whereas many preservation activities are achieved primarily with funds procured through fundraisers, grants, and private donations. Many audiovisual specialists feel they have neither the time nor the skill-sets to undertake the assessment, planning, and subsequent proposal writing necessary in seeking extramural funding. Library administrators noted that funding for new staff positions is generally unavailable, and thus what is most crucial is the restructuring of current positions to include currently overlooked responsibilities in these areas.

Funding issues may be exacerbated by certain characteristics inherent to moving image and audio technology. Even digitized audiovisual resources cannot be easily browsed or skimmed like their paper counterparts, and determining their content can require labor-intensive, real-time review. The situation is even worse for legacy analog formats in that they require specialized playback equipment. As such, assigning descriptive metadata and indexing to moving image and audio collections presents greater challenges than does providing access to print- or text-based special collections and archival collections. And while it was widely noted that collection use steers the allocation of resources for preservation (a frequently accessed collection is one indicator of scholarly value, which in turn justifies the use of scarce resources for its preservation), unpreserved audiovisual materials are oftentimes off limits until access copies are made. Without establishing collection use or demand, fundraising becomes difficult if not impossible.

\(^2\) See http://www.nyu.edu/tisch/preservation/research/video-risk/
While significant in and of themselves, these issues are symptomatic of what was frequently perceived by library staff as a greater systemic problem: There is a widespread perception that, within a print- and book-oriented library culture, media materials maintain second-rate status despite their ubiquity in both academia and culture at large. Even as, for instance, a 2009 collaborative study by NYU, Intelligent Television, and the Copyright Clearance Center\(^3\) found that the educational use of video on campus is accelerating rapidly in departments across all disciplines, and even as a 2007 Modern Language Association taskforce report\(^4\) recommends that departments and institutions recognize the legitimacy of scholarship produced in new media for tenure and promotion, there was a sense that moving image content maintained an imputed frivolity.

To fulfill its mission in the support of research and education, the academic library cannot just collect knowledge; it must also organize, preserve, and make knowledge accessible. Technological changes have and will continue to impact not only the way libraries are used, but also the nature of collections. In today’s academic landscape, the locus of knowledge lies not in print resources alone, but across a broad spectrum of media. Academic libraries can no longer neglect a sector of resources with demonstrated value, growing in both quantity and use throughout teaching and scholarship across a number of disciplines.

In light of the study’s findings, it was determined that further work is required in the following areas: the provision of better training opportunities in the care and management of audiovisual materials, both in library schools and on-the-job; the evaluation and restructuring of current library staff positions to better integrate responsibility for audiovisual collections; the feasibility of establishing coordinated, centralized institutional programs overseeing the long-term care and preservation of moving image materials, including linking audiovisual specialists with library conservation departments; developing and implementing risk-assessment and needs-assessment strategies as well as guidelines for moving at-risk media materials from circulating to special collections; new strategies toward improving audiovisual collection access, and by extension, collection use, including novel approaches to intellectual and inventory control; generating a set of best practices around Intellectual Property issues (which NYU’s Video at Risk project plans to address).

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II. The Current Environment

* More and more, library special collections hold some of our most significant and enduring moving image and sound materials. Moreover, initial studies reveal that library media circulating collections also contain valuable educational materials that are rare and unique. Concurrently, library staff and administrators are increasingly recognizing the value of these audiovisual materials within collections, and seeing their long-term access as integral to the library’s mission.

* Increasingly, both scholarship and instruction utilize audiovisual media as primary source material and as classroom educational tools respectively. Furthermore, the production of multimodal scholarship is gaining traction across disciplines.

* The last few years have seen academic libraries increasingly adopt the role of publisher, enabled by the emergence of new digital platforms like iTunes University, the development of institutional repositories, as well as the Open Access movement.

* The physical characteristics and technological dependencies of audiovisual materials render them highly susceptible to degradation, loss, and obsolescence.

* Even large libraries with established programs in paper preservation often times lack the expertise, methods, and resources to address the preservation requirements of their film, video, and audio holdings.

* Due both to format obsolescence and changes in campus technological infrastructure, it is increasingly difficult for libraries to deliver analog media to faculty and students. Yet intellectual property law is not clear about what kind of analog-to-digital media reformatting can be legally done.

* 21st century libraries have few full-time staff devoted to audiovisual resources, and other collections staff have little training in the specialized handling needed for audiovisual material. Moreover, recently established educational programs have not been successful enough in placing graduates into libraries.
i) More and more, library special collections hold some of our most significant and enduring moving image and sound materials. Moreover, initial studies reveal that library media circulating collections also contain valuable educational materials that are rare and unique. Concurrently, library staff and administrators are increasingly recognizing the value of these audiovisual materials within collections, and seeing their long-term access as integral to the library’s mission.

Today, library special collections hold a wide range of media types beyond the printed page. Personal “papers” can now include ethnographic recordings, video productions, and home movies; organizational record collections include television/radio coverage, audio interviews with esteemed guests and faculty, and videotaped conference sessions. Increasingly, new media artistic and cultural objects—such as computer hard drives that require proprietary software to run their files—are being added to collections.

Valuable and unique moving image materials reside beyond special or archival collections in library circulating collections as well. Research from NYU’s Mellon-funded Video at Risk project (a collaborative study addressing the challenges of the long-term maintenance of circulating video collections), assessed videotape titles held by NYU’s Avery Fisher Center. Initial results suggest that as many as 35% of domestic-distributed videotape titles, and a similar 33% of foreign-distributed videotape titles are, according to aggregated OCLC records, neither held by other libraries nor currently available for replacement in the marketplace—either on videotape, DVD, or streaming formats.

Our MISL study suggests that library staff and administrators unanimously recognize that moving image and audio materials are of value to academic scholarship, instruction, and in turn to library collections. Not surprisingly, materials found in special collections tend to be of greater priority than those in circulating collections. This is due in part to the increasing focus on special collections overall as academic libraries struggle to assert their value, impact, and what sets them apart from other libraries in an atmosphere of shrinking university budgets. Within the subset of our interviewees, archival collections with important audiovisual materials included the films and papers of an esteemed experimental filmmaker, including the rights to this material; the papers of distinguished authors, among which exist rare video interview materials; and historical collections with rare but eminently popular video clips, including recordings of species at one time considered extinct.

ii) Increasingly, both scholarship and instruction utilize audiovisual media as primary source material and as classroom educational tools respectively. Furthermore, the production of multimodal scholarship is gaining traction across disciplines.

A 2009 collaborative study by NYU, Intelligent Television, and the Copyright
Clearance Center found that the educational use of video on campus is accelerating rapidly in departments across all disciplines—from arts, humanities, and sciences to professional and vocational curricula. Faculty, librarians, and administrators expect their use of video in education to grow significantly. They reported that the demand for video and for video resources, by both teachers and students, far exceeded what was available.⁵

According to Primary Research Group’s most recent survey on library use of video and audio resources, in the past two years use of streamed or downloadable video by library patrons in the sampled group has either increased or increased significantly in 56% of academic libraries. For 90% of academic libraries, DVD-use by patrons has either stayed the same, increased, or increased significantly. Even as use of videocassettes decreased in the majority of academic libraries, it stayed the same in 13% of the surveyed academic institutions and even increased in 3.3%.

Moreover, the production of multimodal scholarship is gaining traction across disciplines and a future where academic libraries are collecting this type of multimedia scholarship is foreseeable. A 2007 Modern Language Association taskforce report on evaluating tenure and scholarship for promotion recommends that “departments and institutions should recognize the legitimacy of scholarship produced in new media, whether by individuals or in collaboration, and create procedures for evaluating these forms of scholarship,”⁶ suggesting that this form of scholarship is becoming more and more widespread and conventional.

Whereas perhaps only a trailblazing few of the older academic generation undertake multimodal projects, academia’s future scholars are learning to produce critical arguments using audiovisual tools early on and across disciplines. The Chronicle of Higher Education reports that professors teaching courses in writing, geology, forensics, sociology, anthropology, foreign languages, and many other disciplines now assign video production/editing projects to their students, encouraging them to learn to construct the same arguments in video format that they would in a written paper.⁷ Interview and focus group respondents would add biology, zoology, architecture, ecology, nursing, and medicine to the growing list of disciplines. We mention this not because we advise that libraries be concerned with the preservation of student work, but to suggest that, in the future, as academic libraries collect more and more of this type of scholarship, audiovisual material will continue to be an important

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component of library collections, and perhaps even greater than it is today.

iii) The last few years have seen academic libraries increasingly adopt the role of publisher, enabled by the emergence of new digital platforms like iTunes University, the development of institutional repositories, as well as the Open Access movement.

As developments in digital technology and the Internet have engendered a shift in the life cycle of information, often times collapsing the role of creator, distributor, and reader, for example, the academic library is evolving to meet these changes. Libraries more than ever before are creating, promoting, distributing and preserving scholarly, educational and regional materials of varying formats, including audiovisual materials and electronic texts. Platforms like iTunes and the advent of iTunes University for example, enable libraries to promote and disseminate AV content produced at the university—with class lectures and public events, like talks and panel discussions among the most common—both to an internal audience (the students and faculty on campus) and an external audience (the rest of the Internet-using world). For libraries, partnering with iTunes combines increased visibility of content with a massive amount of free digital storage space as well as the outsourced management of the streaming server. Libraries also use the service to host videos on bibliographic instruction, staff introductions, and the creation of full-scale library channels with regular news updates.8

Other developments both contributing to and emerging from this shift in scholarly communication include open-access publishing, the development of institutional repositories, and the availability of millions of digitized monographs and journals. Some university libraries have responded to this shift more immediately, and with more commitment than others. At the University of Michigan, for example, the Scholarly Publishing Office “experiments with the possibilities of library-based publishing,” including fifteen mostly open-access electronic journals, a monograph series, and digital special projects including online exhibits. SPO also provides hosting services for large subscription-based resources in addition to running a print-on-demand program, and digitalculturebooks, a joint project with the University of Michigan Press.9

iv) The physical characteristics and technological dependencies of audiovisual materials render them highly susceptible to degradation, loss, and obsolescence.

Over the past 150 years, technological innovation has resulted in the proliferation

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of diverse analog and digital devices that capture and create images and sound, and an equally wide variety of mechanisms to record and playback the films, tapes and digital files so produced. However, the physical characteristics and technological dependencies of moving images and sound render them highly susceptible to degradation, loss, and obsolescence, creating a need for immediate conservation and preservation actions. Aging audiovisual materials are fragile and the playback equipment they depend on all too quickly becomes obsolete.

Of these media, the risks to film were the first to be documented. Efforts that led to a collaborative approach to film preservation date to the 1960s; a 1993 report by the Librarian of Congress\(^\text{10}\) gave credibility to the scope and seriousness of the problem. Concerns about television and video preservation followed close behind after John Van Bogart, in a much-referenced CLIR study, estimated the life span of magnetic media to be ten to thirty years.\(^\text{11}\) The necessity for early-acting preservation strategies for digital works in general first came to national attention with the Commission on Preservation & Access/RLG Don Waters report in 1996,\(^\text{12}\) and specifically for born-digital audiovisual media with CLIR’s 2002 report to LC.\(^\text{13}\) More recent efforts include the NDIIPP-sponsored Preserving Digital Public Television\(^\text{14}\) project, where the NYU Libraries collaborated with public television entities to develop preservation strategies that began early in the life-cycle of born-digital works (instead of waiting until the work is given up to the library late in its life-cycle).

\(^{v)}\) Even large libraries with established programs in paper preservation often times lack the expertise, methods, and resources to address the preservation requirements of their film, video, and audio holdings.

Despite the fact that libraries increasingly regard their audio and moving image


materials as valuable artifacts of cultural history, a 2001 CLIR report\textsuperscript{15} points out that not even large libraries with established programs in paper preservation have the expertise, methods, and resources to address the preservation requirements of their film, video, and audio holdings.

Despite best intentions, these films, tapes and digital media often sit on shelves in special collections, with no clear plan for when or how they will be processed, and in the meantime suffer from deterioration and machine obsolescence. Or in the opposite scenario, an archive may take everything in a collection except for the moving images, deeming both playback equipment and staff knowledge inadequate to deal with them. As a result, context and completeness of a person or organization’s work is fractured and lost. In library circulating collections, rare and irreplaceable video materials continue to circulate until degraded beyond repair. Or libraries discard legacy playback equipment rendering important research materials unusable. The uncertain legal and practical implications of collection reformatting complicates library practices and principles for long-term collection viability.

\textit{vi)} \textit{Due both to format obsolescence and changes in campus technological infrastructure, it is increasingly difficult for libraries to deliver analog media to faculty and students. Yet intellectual property law is not clear about what kind of analog-to-digital media reformatting can be legally done.}

As campuses replace classroom video players with computer workstations and projectors, administrators expect libraries to either reformat their legacy analog video collections to play on digital computers, or to purchase new digital versions. But as NYU’s Mellon-sponsored Video at Risk project is finding, a significant number of these cannot be replaced,\textsuperscript{16} and the legal issues for reformatting are murky. Earlier this month NYU began circulating a White Paper on this subject (commissioned from an IP attorney). And the federal court decision in the UCLA streaming-video case contains interesting language calling that specific occasion of reformatting “incidental” and saying that in that context it was non-infringing. Further analysis of this decision is needed to see whether it might apply to other library video-reformatting activities.


\textsuperscript{16} Howard Besser and Walter Forsberg, untitled, (working paper, Video at Risk: Strategies for Preserving Commercial Video Collections in Research Libraries, New York University, 2011).
vii) 21st century libraries have few full-time staff devoted to audiovisual resources, and other collections staff have little training in the specialized handling needed for audiovisual material. Moreover, recently established educational programs have not been successful enough in placing graduates into libraries.

Despite an increasing valorization of moving image and audio collections within academic libraries, inadequate staffing and staff training remain a significant barrier to both the stewardship and access. The absence of the knowledge and experience needed to inventory and analyze the condition and needs of moving image collections can paralyze libraries and stymie efforts to organize and build ongoing preservation programs. As Preservation Librarian Paula de Stefano points out in her 2003 article on the landscape of film and video preservation in libraries, the lack of qualified personnel in academic libraries is substantial, with librarians lacking technical skills, the basic understanding of film and video history, as well as a grasp on various moving image production technologies.  

A 2004 CLIR survey on audio collections in academic libraries draws similar conclusions, reporting that in all but a few ARL institutions, staffing for recorded-sound collections is minimal, with few full-time positions cited by respondents. The report notes that “lack of staff” sufficiently trained and conversant in the genres, formats, and rights issues unique to recorded-sound collections is one of the major barriers to access in the collections. 

Seven years later, the lack of expert staff in libraries continues: The 2011-12 edition of Library Use of Video & Audio reports that half of academic libraries have one or less FTE staff members devoted to audiovisual materials. 

Although the lack of formal training possibilities was first identified as a problem nearly two decades ago—first by Margaret Child, and then later by Gregory Lukow—today the situation seems little changed. NYU's current IMLS-

21 In 1993, Margaret Child found that her research into information sources relating to still, moving image and audio recordings “suggests a lack of training and educational programs both for preservation professionals wishing to specialize in non-paper-based media and for professional and technical staff in treatment and transfer processes.”
sponsored study confirms that a significant number of existing library staff feel that they lack appropriate training for dealing adequately with audiovisual material. Format identification, metadata and cataloging for moving images, and orientation within the digital landscape—for instance, which file formats are used for preservation versus access—are among the training gaps most often cited.

http://www.amianet.org/11_Information/11e_careerFctSht.html. (Originally published in *Film History* 12: 2, 2000.)

23 In 2000, Gregory Lukow, now the Chief of the Motion Picture and Recorded Sound division at the Library of Congress, argued the importance of university level education taking the place of an apprenticeship approach: “Even today, by the year 2000, the overwhelming majority of film and video archivists who are working to collect, preserve, and provide access to moving images have entered the field through on-the-job experience.”
III. The Study: Project Description, Methodology, Survey Group

i) Project Context, Description, and Methodology

This white paper is a report on the state of moving image collections in libraries, and highlights issues of stewardship, obstacles to change, and possible solutions. It is derived from a series of focus groups and over two dozen interviews with working professionals on the challenges faced by moving image specialists in libraries. It is part of the larger Moving Image Specialists in Libraries (MISL) project, which was funded by IMLS’s initiative to transform 21st century libraries into leadership institutions that meet upcoming immense and pressing preservation and access needs. The project is undertaken by NYU’s Moving Image Archiving & Preservation program, and is led by the program’s Director Howard Besser.

The MISL project consists of two main segments:

- Placing NYU students and recent graduates in library work situations for intensive periods of time, both to provide additional training for students and graduates of the MIAP program, and to allow host institutions to recognize the value of these skill sets (this will not be discussed further in the context of this report).
- A variety of activities designed to stimulate action from the library and archival communities on the state of affairs of audiovisual collections. These activities have primarily taken the form of discussion and documentation, and employ interviews, focus groups with both librarians and library administrators, and a website (which, open for commentary, also served as a public forum). The website hosts interviews conducted by MISL researchers, resources on moving image archiving and preservation, and updates from professionals in the field.

This white paper is part of the second segment. The purpose of this document is to review and synthesize information collected through the interviews, focus groups, and website commentary into a report designed to be read by library Deans and Directors. The report covers the state of moving image collections in libraries and their stewardship, the obstacles to change, and possible solutions. The interviews, comprised of twenty-one official questions directed at moving image specialists and other library professionals, served as our primary data collection tool for this report. Conducted over the course of two years (2009-2011), these formal interviews document the experiences of librarians working with moving image collections. Interviewees were selected to represent a range of library types and sizes, and to collect information from specialists new to the positions as well as those with considerable career experience.

Interviewed participants were questioned on their roles and duties in their
respective libraries; the collections they oversee and the types of moving image materials found within them; their background and relevant training; obstacles to establishing moving image preservation programs in libraries, and conversely, what facilitates their creation; the status of moving image professionals in libraries and what needs to be changed. These in-depth interviews were transcribed and both audio and transcriptions posted to the project website, and invitations were sent to working professionals asking them to comment on the issues raised in the interviews.

A series of informal interviews was also conducted during this time. Guided by the same set of questions used for the formal interviews, MIAP students in IMLS-funded library internships interviewed their supervisors. For the purposes of this report, only non-attributed observations and anecdotes are drawn from these interviews.

During the same period, three focus groups were conducted, each with five to ten professionals in academic libraries, including media librarians in circulating collections as well as preservation specialists. Participants discussed the state of moving image and sound collections in libraries, including current preservation and access practices; the training of moving image caretakers; whether there is a need for trained moving image specialists in libraries; and the impediments to hiring such professionals.

Following the third focus group, a draft of this report was prepared, then circulated and discussed among eight library deans and administrators in a fourth focus group. Participants discussed and evaluated their institutional approaches to media collection care, including strategies for management and preservation, decision-making around resources, unit structuring, where responsibility for preservation lies, and so on. The administrators also responded to issues and concerns raised by librarians in the draft report, including lack of staff training and possible remedies, and the perception that audiovisual materials are of low priority among library resources.

This final report incorporates participant responses from the fourth focus group. As with the in-depth interviews, all focus group participant responses are woven into this report, although they remain non-attributed due to protection of human subjects concerns.

The responses collected in the interviews and focus groups comprise the foundation of Section III: Findings & Observations and Section IV: Implications for Library Deans & Directors, and are generally the source of specific facts and figures cited therein. Online comments from the broader professional community on the issues raised in the posted in-depth interviews were also considered in the authoring of this report.
ii) Description of formal interview group and collections they represent

Over the course of two years we performed twenty-four formal interviews with twenty-five library professionals at twenty-one distinct institutions. Of those interviewed, five were employed at major museums and/or cultural centers; and the remaining twenty at colleges and universities, including one school of art and design. All but two participants are employed full-time, and two are in temporary positions. Eleven work with special collections and libraries, three in preservation departments, eight in circulating collections, and three in digital services.

The participants were dealing with disparate collections containing rich and diverse media holdings comprised of a complex assortment of analog and digital formats, from antiquated and obsolete videoreels to the latest file encapsulation formats. Film was present in most but not all collections. Predictably, format distribution varied according to collection type and departmental location. Special collections and libraries tend to have a greater variety of moving image formats, including older and obsolete formats like ½-inch, 1-inch, and 2-inch tape, U-Matic, Hi-8; a greater prevalence of film, especially 16mm, but also Super 8mm, 8mm, 35mm, and even 9.5mm; and a wider variety of older audio formats, including ¼-inch tape, audiocassettes, and 8-track cartridges. Circulating collections tend to hold a defined set of physical formats available: for video, VHS, DVD, laser disc; and for audio, CDs, and audiocassettes. All interviewees reported having at least some moving image and audio content available in digital file formats.

Collection sizes were substantial, with librarians reporting a total estimated number of physical items ranging from 8,000 to more than 60,000 items. Moreover, these audiovisual materials are not confined to designated media centers, but are distributed throughout various library collections, including special and archival collections.

Of those libraries with a central preservation/conservation department, five included facilities for audio/video preservation labs and/or were equipped to handle reformatting on site; one is planning to establish a preservation lab and has already taken steps to do so.

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24 It is worth noting that at least one respondent with prior knowledge and training in moving image archiving argued that her lack of LIS certification prevented her from being hired in library positions she was otherwise more than qualified for.
IV. Summary of Findings

This section presents a summary and interpretation of the interview and focus group responses. It highlights overall findings and identifies noteworthy concerns for academic and research libraries. First we briefly state the entire list of findings, then we offer details.

* Audiovisual materials are not confined to designated library media centers but are distributed throughout various library collections, including special and archival collections. Both library professionals and administrators recognized the acquisition and upkeep of audiovisual content as integral to the mission of the library.

* Some libraries have integrated oversight of audiovisual preservation into their preservation and conservation departments, creating a centralized and coordinated program led by an audiovisual preservation specialist (although this tends to be the exception not the rule). Other libraries have neither centralized program nor trained specialist on staff, and the responsibility for the long-term care of moving image collections remains unassigned.

* Library school training in the care and management of audiovisual materials appears to be inadequate, and most librarians charged with stewardship over audiovisual collections learn on the job.

* Conference attendance, workshops, and other forms of training and networking opportunities were cited as highly valuable for professional development overall and a remedy for gaps in training. However, some librarians noted that opportunities for training related to preservation and technical issues were few and/or were often perceived as unsupported—financially and otherwise—by library administration.

* There appears to be a distinct increase in the training and support that media librarians are providing for student and faculty use of media technologies, as well as the production of media content, across a variety of non-traditional disciplines.

* The consensus among respondents was that budget limitations were a significant obstacle both to preserving audiovisual collection materials and to the hiring of audiovisual preservation specialists.

* Lack of familiarity with older and obsolete media formats can lead to the establishment of misguided reformatting priorities with deleterious consequences for collections.

* Faculty often request classroom instruction materials on outmoded audiovisual formats—particularly VHS—that are both deteriorating and irreplaceable. This
problem is exacerbated as corresponding playback equipment is removed from classrooms.

* There is a widespread perception among librarians that, within a text-oriented library culture, media materials maintain second-rate status despite their ubiquity in both academia and culture at large. Library administrators noted that overall distinctions between print and non-print are currently less meaningful than those between electronic and analog materials, but that collections are still comprised primarily of text-based materials, and priorities are subsequently weighted in this area.

* Lack of expertise around complex technologies—old and new—can induce a culture of fear and reticence around the adoption of these technologies, in turn delaying urgently needed attention to at-risk media materials.

* Challenges unique to audiovisual resources in providing discovery and indexing means the value and use potential of audiovisual collections can be more difficult to establish than for print collections.

* Lack of clarity around issues of copyright and intellectual property with respect to preservation reformatting and access/distribution are widely perceived as a barrier to the preservation of audiovisual resources.
i) Audiovisual materials are not confined to designated library media centers but are distributed throughout various library collections, including special and archival collections. Both library professionals and administrators recognized the acquisition and upkeep of audiovisual content as integral to the mission of the library.

It was uniformly acknowledged that moving image resources are located across several library administrative units, including special collections and archival collections. Many librarians also noted the prevalence of moving image resources—including documentation of campus events—within research and teaching collections in academic departments. Work produced at and by the university is of particular importance to libraries, which generally take a campus-wide interest in all materials. Whereas for some libraries, commercially-available audiovisual content tends to be concentrated in media centers overseen by a media librarian, others have taken a more distributed approach, with materials dispersed throughout various library units, and responsibility for acquisition delimited by the subject purview of the various bibliographers—that is, responsibility is determined via content and not format. In fact, several library administrators noted that their institutions have long ceased employing the term “media librarian”—since responsibility does not fall onto one person, the term is no longer applicable. Furthermore, those library administrators interviewed were unanimous in their assertion that media collections are integral to the mission of their libraries and should not be isolated from other library materials.

ii) Some libraries have integrated oversight of audiovisual preservation into their preservation and conservation departments, creating a centralized and coordinated program led by an audiovisual preservation specialist (although this tends to be the exception not the rule). Other libraries have neither centralized program nor trained specialist on staff, and the responsibility for the long-term care of moving image collections remains unassigned.

Attention to the preservation of moving image materials varies from institution to institution and runs a wide spectrum. At one end, libraries have integrated the coordination of long-term care for audiovisual collections into their centralized preservation department, supported by a specialist and a lab with dedicated equipment. Specialists work with collection managers to identify at-risk materials and perform content transfers and preservation treatments on-site. This approach, although ideal, is resource-intensive and tends to be the exception not the rule. Other libraries have integrated audiovisual preservation into their library-wide program, but lack either requisite skill-sets and/or material resources to do the work on-site.

At the other end of the spectrum, many libraries have neither an audiovisual
preservation specialist nor a coordinated audiovisual preservation program. Interviewed librarians noted that in such cases, the responsibility for the preservation of these materials remains unassigned, being neither the responsibility of the library conservator, nor the department holding the material. Central preservation departments, lacking expertise and resources, assume responsibility for disaster recovery services and little else. As one respondent summed up, “Advisement on preservation issues lies with whoever knows the most about it.” In some cases, media librarians would find themselves in the role de facto, counseling on issues as they arise—even on behalf of other administrative departments—despite their lack of preservation training. Moreover, for many librarians already overwhelmed by day-to-day responsibilities, finding time to evaluate holdings or plan for long-term care collection care proved difficult if not impossible. Little planning occurs before the situation hits a crisis state, and valuable materials are at risk of loss.

iii) Library school training in the care and management of audiovisual materials appears to be inadequate, and most librarians charged with stewardship over audiovisual collections learn on the job.

Most participants, whether in the field for five years or twenty years, gained the bulk of their training in the care for moving image materials from on-the-job experience. This situation reflects the fact that training is not adequately available in LIS schools, archival training programs, or post-graduate preservation programs. In fact, to date there has been only one successful effort to create such a moving image specialty within these programs. Most LIS programs offer preservation courses on an elective basis, and moving images and sound are typically addressed in only one or two class sessions.

When asked whether library school training leads to preparedness for the realities of the day-to-day job demands, many respondents noted that they lacked practical skill-sets. As one respondent commented, “I think library schools still have a long way to go. [...] It would have been great were there several advanced archival and preservation classes offered, like how to care and handle for 16mm or 35mm film. Instead, [we received] mostly textbook readings about what an archival storage environment should be like in theory. Unfortunately, [as a student] you are not actually expected to practice or learn within an archival environment.”

Moreover, many librarians reported that learning on the job presented major challenges, especially with respect to its technical aspects—keeping up with new and emerging technologies and media formats, while struggling to learn about old ones. For instance, one respondent told us, “As a media librarian, you [need] skills in university technology. I mean, I’m still in the dark about the technological jargon and how the technology pieces fit together. I don’t know a lot about technology. This campus has so many departments and staff involved in IT
issues, and the media librarian really has to get in on the conversation and say, we’re doing this, we want to do this, how can you help? Or, how can we help you? But I don’t feel like I have enough training to enter the conversation.”

iv) Conference attendance, workshops, and other forms of training and networking opportunities were cited as highly valuable for professional development overall and a remedy for gaps in training. However, some librarians noted that opportunities for training related to preservation and technical issues were few and/or were often perceived as unsupported—financially and otherwise—by library administration.

Librarians stressed that the opportunity to attend conferences, workshops, and other forms of learning and networking were essential to professional development overall. Many librarians noted that conferences and workshops related to audiovisual preservation—for instance, identification of video, film, and audio formats, or environmental factors such as housing—and/or technical issues—selecting file formats for digital access and preservation, for instance—were helpful in remediating training gaps, but noted that they were less likely to be supported than other types of workshops, like those focusing on collection development for instance. Librarians noted that conferences librarians most commonly received funding to attend—ALA, CCUMC, Video Round Table, Media Market, and the New Media Consortium—were great for updates on ongoing theoretical issues like copyright best practices and collection development, but weren’t sufficient for issues of preservation and technical information, and provided little in the way of hands-on training. And although many librarians acknowledged that training in these areas would enhance their effectiveness in the library, most felt that budget and time constraints left them unsupported for this type of training. Library administrators noted that they would support the acquisition of new skillsets for staff with training gaps, but the nature of these gaps was not always easy to ascertain. [MENTION HERE PHASE II THIS PROJECT?]

v) There appears to be a distinct increase in the training and support that media librarians are providing for student and faculty use of media technologies, as well as the production of media content, across a variety of non-traditional disciplines.

Several media librarians noted that among their primary job responsibilities was training and support for media literacy and production—both in the library and in the classroom—for faculty and for students. Media librarians advise on the integration of scholarly research values into faculty or student produced media, and offer introductory training in legal issues like copyright, fair use, and attribution, much in the same way that a print librarian would for a written paper or essay. Librarians noted that the increased use of media technologies and production of multimodal scholarship was taking place across disciplines—for instance, in the biological sciences, ecology, architecture, nursing and medicine to name a few cited examples—and as such, no longer serve specific fields like
film or media studies. As one respondent noted, “These departments are not traditional media production departments, and what the faculty are telling me is that these students need to understand the role of video in their respective fields. Because it’s important that, when they graduate and go out into the workforce, they understand how to communicate in these new formats, [that] they know how to research in these new formats.”

vi) The consensus among respondents was that budget limitations were a significant obstacle both to preserving audiovisual collection materials and to the hiring of audiovisual preservation specialists.

Again and again, budget shortages were identified as a primary obstacle to both the proper care for moving image materials, and the hiring and training of moving image specialists. Funding cuts across the board and the looming crisis in higher education, particularly in the public system, left many academic librarians unable to conceive of creating new positions in any department, and some even worried about the stability of their own employment. Typically, an institution’s baseline budget can often only support basic operations, whereas most preservation activities (other than temperature and humidity control) are achieved primarily with funds procured through fundraising, grants, and private donations. Libraries and archives rely heavily on grants and private donation, but the time required for necessary assessment and planning that goes into proposal writing is time-consuming and requires devoted staff-time that is often unfeasible.

Several library administrators acknowledged that funding for the creation of new positions is unlikely, and that to address lack of audiovisual expertise among current library staff means the transfer of some resources to training and renewal of skill-sets to meet the needs of the shifting landscape in the academic library. As one respondent noted: “As positions become vacant, we’ve redefined them to look at, for example, digital librarianship in the humanities. We’re not getting new positions. So we have to repurpose [current positions]—we have to rethink how we’ll make the move.”

viii) Lack of familiarity with older and obsolete media formats can lead to the establishment of misguided reformatting priorities; collections may not be addressed until the damage is irreperable.

Lack of familiarity with moving image and audio formats among library staff places valuable and irreplaceable collection materials at risk. For instance, as archival collections are processed, archivists unfamiliar with legacy audiovisual formats may easily misidentify materials, mistaking video for audio and vice versa. These types of errors can persist for years without being recognized. For instance, Hannah Frost, Manager of the Stanford Media Preservation Lab, noted
that this type of gap sets up a library “for a host of ongoing management issues over time.” She pointed out that a long history of inadequately-trained processing staff misidentifying media formats—particularly those that are older or obsolete—had rendered library collection inventories unreliable, and as consequence, establishing preservation priorities is more difficult.

Unfamiliarity with audiovisual formats also means that those formats requiring immediate attention can easily go overlooked. One respondent noted, “I don’t know that in processing we have archivists that are really trained to recognize the difference between a media format that should get attention this year, the next five years, that’s stable for ten years or twenty years. And so that strikes me as both a potential problem as well as a big opportunity. Because if we can train archivists who are engaging with that type of processing to have a little awareness of media, at least we’ll have a little better idea what’s in our collections.”

An anecdote from Joanne Rudof, archivist at Yale University Library’s Fortunoff Video Archive for Holocaust Testimonies—currently in the process of digitizing its collection of 13,000 videocassettes recording the testimonies of more than 4500 Holocaust survivors—demonstrates how informed, and relatively early preservation action can prevent potential collection losses. The master tapes from the first three years of the project (1979-1981) have so much oxide shedding that staff will rely on Beta SP copies made between 1997 and 2001, as well as between 2005 and 2006 (when they were the beta test site for the SAMMA robot), for preservation transfers they are presently creating. The foresight to begin the preservation transfer process two decades after the tapes were first recorded has proven extremely advantageous.

ix) Faculty often request classroom instruction materials on outmoded audiovisual formats—particularly VHS—that are both deteriorating and irreplaceable. This problem is exacerbated as corresponding playback equipment is removed from classrooms.

Many librarians lamented difficulties fulfilling faculty requests for materials supporting classroom instruction. Several interviewees cited specific instances in which lost or damaged curricular materials were either difficult or impossible to replace—these items were no longer being distributed in any format. For instance, according to one interviewee, “In instances where you have material that’s central to a curriculum . . . and the producers aren’t incorporated anymore, and the rights holders are unknown . . . finding a replacement is a concern.” The librarian went on to recount a case of the most circulated video on campus—a requirement for students wanting a certification in radiology at the School of Nursing—which is no longer easy to locate or purchase. (A separate NYU project, Video At Risk, is examining legalities around ILL and replacement reformatting of out-of-print works.)
Other librarians noted that a lack of commitment to maintaining older playback equipment led to similar issues. Faculty would request an item on a format unsupported by any of the library and/or classroom or departmental playback equipment.

x) There is a widespread perception among librarians that, within a text-oriented library culture, media materials maintain second-rate status despite their ubiquity in both academia and culture at large. Library administrators noted that overall distinctions between print and non-print are currently less meaningful than those between electronic and analog materials, but that collections are still comprised primarily of text-based materials, and priorities are subsequently weighted in this area.

Many librarians noted that, in their own libraries, media remains a second-class citizen in a classically print- and book-oriented culture. “[There’s an] assumption of imputed frivolity,” one respondent noted. “We want to do the important things first, the papers, and all that—the most important things. And then we can get to the fun stuff. I think [moving image materials are] not seen as primary [materials within libraries].” Still another noted that part of the bias toward print is structural, though not necessarily deliberate, since many of the tools used to find materials are catalogs “based primarily on printed materials”; so for instance a patron in search of particular director would need to use the “author” field; that is, library catalogs demand that audiovisual metadata flex and bend around fieldnames that describe books and print to the exclusion of audiovisual material. Some even went as far as to characterize the academic library as a conservative institution with deep interest in protecting what has been historically received as intellectual culture. And in a particularly defeatist comment on the blog, Gary Handman, Head of the Media Resources Center at UC Berkeley, lamented, “Even in this era of media ubiquity, film and video, which have never been a high priority in academic libraries, seem to have actually lost ground—a fact that is easily confirmed by the surveying the paucity of robust media collections and full-time media librarians in the US.”

Library administrators also pointed out that text materials (whether print or electronic) still comprise the bulk of collections, and in turn command more attention than other types of material. However, they also noted that the distinction between print and audiovisual is becoming less relevant than that between electronic/digital materials and analog materials, including print. Most administrators in our focus group sugested that electronic materials of all kinds are now invested in over and above all other library materials—that of highest importance is ensuring the success of faculty and students on campus going forward, which means identifying what is of importance in the scholarly record and providing access to it, whether its audiovisual or text. This investment also includes increasing staff positions that deal with audiovisual materials: many administrators noted that funds for new positions are unlikely, but that what’s
likely and possible is the restructuring of existing positions that include attention to audiovisual materials alongside other responsibilities, and a commitment to retraining library staff. For instance, one administrator noted that the library retrained its copy catalogers to deal with metadata for electronic materials

xiv) Lack of expertise around complex technologies—old and new—can induce a culture of fear and reticence around the adoption of these technologies, in turn delaying urgently needed attention to at-risk media materials.

Fear of complex technologies was a commonly cited obstacle to providing requisite attention to audiovisual collections. Between grasping older video and audio formats (now obsolete) and rapidly developing digital technologies, audiovisual preservation can feel like an enormous burden to take on. Jake Nadal, Preservation Officer at UCLA Libraries, commented, “Some days I think there’s a little bit of technophobia—that there’s yet another new complex technology to master. I think there’s also some reticence to be involved with the maintenance and operation of everything it takes to really be able to provide a whole range of services [with video].”

xv) Challenges unique to audiovisual resources in providing discovery and indexing means the value and use potential of audiovisual collections can be more difficult to establish than for print collections.

Providing access to moving image and audio collections presents greater challenges than does providing access to print- or text-based special collections and archival collections. Requiring specialized playback equipment, audiovisual resources cannot be browsed or skimmed like paper resources, making cataloging very time-consuming and indexing almost impossible. If audiovisual materials are not linked to a written identifier—which, even when available, may provide scarce or even inaccurate information—determining their content can be require labor-intensive, real-time review. Moreover, commonly placed playback restrictions on unpreserved audiovisual materials means that even real-time review is not a possibility. Though some forms of automatic indexing of digital video content show promise, these techniques are far from mature, and very little of our libraries’ video is yet in digital form.

At the same time, it was widely noted that collection use steers the allocation of resources for preservation: a frequently accessed collection suggests scholarly value, which in turn justifies the use of scarce resources for its preservation. With any set of materials, the initial challenge is to make enough available to encourage interest and demand for access; yet, several librarians noted that due to the challenges presented by description, important collections remain “hidden.” Lisa Miller, Associate Archivist at the Hoover Institution Archives, summarizes this issue well: “I see a bit of conundrum in that we often don’t have very much description of our moving image materials and we’re dependent on the labels on
videotapes, for example. We can’t even watch them [before they are preserved]. So we don’t have very good descriptions [and] that prevents use.”

xii) Lack of clarity around issues of copyright and intellectual property with respect to preservation reformatting and access/distribution are widely perceived as a barrier to the preservation of audiovisual resources.

Rights restrictions can be detrimental to libraries’ attempts to preserve works, as without prior explicit permission from copyright holders, donors, or other rights holders, our libraries are not sure that they have the legal right to reformat (even from obsolete formats to newer, more stable media). Furthermore, preservation reformatting is so labor-intensive that it can often only be justified within an institution if access is a foreseen possibility. As one respondent noted, “You can have [resources] transferred for reference purposes, but that’s a lot of money for something that you don’t own and that people are going to want to make copies of. I don’t think that’s something that we can generally afford to invest in, except on a small scale.”

A similar situation pertains to the commercial resources found in circulating collections. Implementation of fair use by media librarians is often not well understood, and a lack of best practices leaves many librarians in a state of confusion and anxiety about undertaking collection duplication for access purposes. While rights assessments are tremendously important for archivists and media librarians, time, labor, and legal costs are barriers that prevent a vast majority of archives from assessing rights. (As mentioned previously, NYU’s Video At Risk project plans to address some of these issues.)
V. Implications for Library Deans & Directors

The academic library plays an integral role in supporting research and education, higher education's core missions. To fulfill this mission, the academic library cannot not just collect knowledge; it must also organize, preserve, and make knowledge accessible. Technological changes have and will continue to impact not only the way libraries are used, but also the nature of collections. In today's academic landscape, the locus of knowledge lies not in print resources alone, but across a broad spectrum of media. Academic libraries can no longer neglect a sector of resources with demonstrated value, growing in both quantity and use throughout teaching and scholarship across disciplines.

* Without a centralized, coordinated program in audiovisual preservation, the distribution of moving image resources throughout library administrative units means valuable items can easily fall through the cracks.

* Without better training opportunities in the care and management of audiovisual materials—both in library school and on-the-job—valuable materials will not receive due attention and collection richness will decline.

* Without improved training in library school and support for ongoing professional development, librarians will not possess the portfolio of skills to adequately manage and care for audiovisual collections, including the establishment of reformatting priorities. Research support and services to faculty and students will suffer as a result.

* Without on-site technical expertise for both old and emerging technologies, a culture of anxiety can delay or stall preservation planning for materials in need of urgent attention. The same may be said for lack of clarity around issues of copyright and intellectual property.

* Without a commitment to the maintenance of legacy playback equipment, many moving image and audio resources will no longer be accessible, impeding research and classroom instruction especially.

* Without amelioration in the provision of access to audiovisual collections, including improved bibliographic control, faster processing, and the promotion of resources, important collections can remain untapped by researchers, and opportunities for funding may go unrealized.
VI. Further Work

This report has outlined a number of urgent and often complex issues pertaining to the stewardship of moving image collections within academic libraries, which when left unaddressed, leave valuable research collections at risk. Insufficient preservation assessment and planning, inadequate staff training and skill development, and scant collection access for instance, are seemingly widespread conditions throughout academic libraries and as such, in merit of further study, at the national, regional and institutional level. We recommend that future work examine the following:

i) The provision of better training opportunities in the care and management of audiovisual materials, both in library schools and on the job. Where new hires are unlikely, evaluating current positions and restructuring to include currently overlooked responsibilities; this will often entail retraining staff.

ii) The feasibility of establishing coordinated, centralized institutional programs overseeing the long-term care and preservation of moving image materials. This would include developing strategies for the linking of audiovisual specialists with library conservation departments.

iii) Developing and implementing risk-assessment and needs-assessment strategies as well as guidelines for moving at-risk media materials from circulating to special collections.

iv) New strategies toward improving audiovisual collection access, and by extension, collection use. This includes novel approaches to intellectual and inventory control as well as the promotion of materials as valuable scholarly resources to the campus community and broader public beyond.

v) Generating a set of best practices around Intellectual Property issues, including aggressive access policies under the fair use exemption of the copyright law.