

Archiving Moving-Image and Audio-Cultural Works in Canada



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RÉSUMÉ Cet article décrit les développements dans l'archivage des films, des vidéos et des bandes sonores qui sont survenus durant les nombreuses décennies qui ont suivi la parution des premiers articles sur les films et la radio et télédiffusion dans la revue *Archivaria*. Certains aspects des pratiques et des procédures dans le domaine, tels que ceux liés au défi de la sélection des documents d'archives parmi la masse d'enregistrements produits au Canada, n'ont pas changé dramatiquement. Toutefois, la technologie et son impact sur la préservation est en constante évolution. Cet article examine comment les changements en radio et télédiffusion ont altéré la programmation, notamment au niveau de la diffusion d'émissions portant sur les arts de la scène et d'autres programmes culturels, et comment certains diffuseurs se sont engagés très activement dans l'archivage de leurs propres créations. Une connaissance solide de la probabilité de survie à long terme des médias sur lesquels les films, les vidéos et les bandes sonores ont été créés ou sauvegardés est primordiale pour l'élaboration des critères de sélection. Actuellement, la technologie numérique est une épée à deux tranchants : elle promet des avantages comme un support de données moins dispendieux et un meilleur accès, mais elle constitue une menace pour les films, les vidéos et les bandes sonores plus anciens, puisque les services comme les laboratoires de traitement de film et les matériaux comme le ruban à collage des bobines de bande deviennent plus difficiles à trouver.

ABSTRACT This article explores developments in the archiving of Canadian films, videos, and sound recordings in the several decades since *Archivaria* first published major articles on film and broadcasting. Some aspects of audiovisual archiving practices and procedures have not changed drastically, such as the challenge of how to make archival selections from the masses of recordings being produced in Canada. However, technology and its impact on preservation is constantly evolving. The article looks at how changes in broadcasting have altered programming, notably broadcasts of and about the performing arts and other cultural programs, and how some broadcasters have become very active in archiving their own creations. Vital to selection criteria is a good understanding of the long-term survival prospects of the media on which films, videos, and sound recordings are created and stored. At this point in our history, digital technology is a double-edged sword, promising benefits such as cheaper storage media and improved access, but posing threats to older film, videos, and sound recordings as services such as film processing laboratories and supplies such as audio reel splicing tape become more difficult to find.

From today's vantage point, with strong collections of moving images and sound recordings in large and small heritage institutions across Canada, it is difficult to remember a time when Canadian archivists had to make a case for the archival value of moving images and sound recordings. This was the situation in 1978, when *Archivaria* published an article by Ken Larose about the significance of Canadian film and video, and in 1979 when it published Josephine Langham's article about Canadian radio.¹ By 1986, when *Archivaria* published an article on selection criteria for Canadian television programs, the acquisition of moving images and sound recordings was well-established at the former National Archives of Canada, now Library and Archives Canada (LAC), so much so that selecting from the mass of materials being offered had become a major task.² By then, archivists had managed to convince a number of important creators to donate selected cultural works and other content to LAC. The present article provides an update to the three articles, addressing major developments that have occurred since then both in LAC's collection and in Canada in general, and how this changed environment demands new solutions from archivists and conservators.

There has always been an essential contradiction in the acquisition of moving images and sound recordings from active creators. In the 1970s, there was a real concern among scholars and archivists, shared even by some staff in broadcasting and film organizations, that public archives had to get involved in helping to save Canada's film, video, and audio heritage. Part of this was because creator organizations often saw archival holdings as liabilities rather than assets, of limited use after their initial release or broadcast. Most producers now appreciate the reuse potential of their works, although this does not always translate into archiving them for long-term preservation. Local broadcasters and non-profit organizations such as community radio stations are examples of creators who can seldom afford to keep archival-quality copies. There are no legal mechanisms to encourage or require broadcasters to keep copies of programming beyond the poor-quality logger tapes required by the Canadian Radio-Television and Telecommunications Commission (CRTC), nor does the CRTC make stations keep logger tapes indefinitely.

Film and video makers and broadcasters, particularly independent producers, can seldom afford to simply donate archival-quality copies of their works. Professional-quality recording media are expensive. Some creators offer moving images and sound recordings to archives because they do not have the

1 Ken Larose, "Preserving the Past on Film: Problems for the Archivist," *Archivaria* 6 (Summer 1978), pp. 137–50, and Josephine Langham, "Tuning In: Canadian Radio Resources," *Archivaria* 9 (Winter 1979–80), pp. 105–24.

2 Rosemary Bergeron, "The Selection of Television Productions for Archival Preservation," *Archivaria* 23 (Winter 1986–87), pp. 41–53.

space or do not want to pay for commercial storage. Sometimes they are willing to part with originals only when they have already copied them to newer formats. In the moving-image and audio-production world, there is no such thing as a dormant record. The expansion of Canadian television into specialty cable channels has developed greater demand for programming content, including the use of older programs and archival footage in new programs. When production companies and broadcasters need access to the films, videos, and sound recordings they donate to archives, they expect quick-turn-around loans or copying to meet the deadlines of their production environment. Such demands can easily dominate the overall resources of archives. A major difference between the role of archives such as LAC and the preservation role played by creator organizations is that creator organizations do not have a specific mandate to make the records in their care accessible for scholarly use. The chief means of access are through reuse in broadcasts, rare theatrical re-releases of feature films, and purchasing of complete works or excerpts at steep commercial rates. As a new delivery mechanism, the Internet is challenging traditional definitions of broadcasting and other forms of dissemination. It is changing people's expectations of how to access information. Increasingly, the public expects to be able to obtain a broad range of information via the Internet, at no charge. Broadcasters are starting to experiment with streaming some productions and program excerpts, and making programs available through podcasting. In this changing environment, Canada's largest publicly-funded film and broadcasting producers, the National Film Board (NFB) and the Canadian Broadcasting Corporation (CBC), are moving closer to fulfilling the preservation and access role of traditional archives. The role of private-sector film companies and broadcasters in archiving their own productions and making them accessible to Canadians is much less apparent and hence in need of serious attention by archivists. The question for the archivist when considering an acquisition is whether the records still held by active film producers and broadcasters are truly at risk, and whether the relative lack of public access seriously impedes the study of Canada's film, video, and broadcasting culture.

The 1986 *Archivaria* article outlined three broad categories of selection criteria applicable to any archival media: historical, cultural, and sociological. The categories had been cited in CBC internal selection criteria of the 1960s and 1970s and still serve as a useful, if somewhat simplistic, basis for decision-making. Of the three categories, the cultural category can be the most difficult to apply because it puts the archivist at risk of being subjective and basing selection decisions on personal taste. As perusal of the national online catalogue www.archivescanada.ca indicates, archival collections do in fact strive to avoid being elitist, while aiming to acquire works that represent achievement in various fields of Canadian cultural endeavour in the visual, literary, and performing arts. As a counterbalance to concerns that acquisition overem-

phasizes the output of elite culture, openness to popular culture is a characteristic of many acquisition programs. Movies, broadcasts, and other recorded works also serve to attract a wider group of people to archives because they find the content interesting and such media seem more culturally accessible than traditional records. Since the 1970s, the growing multicultural makeup of Canada has added another challenge, making more apparent the relative lack of cultural diversity in the film, video, and audio held by heritage institutions.

The LAC collection reflects the difficulties inherent in the cultural criteria. LAC has made efforts to acquire milestones of Canadian culture such as dramas adapted or written especially for radio and television, Canadian feature films, recordings of dance and music performances, and interviews of and documentaries about Canadian creators working in the visual, performing, and literary arts. Some of these works do not capture the popular imagination or attract many filmgoers, television viewers, or radio listeners. This is particularly problematic in English Canada, where most people prefer American television programming and feature films. English-Canadian films have a hard time getting the theatrical distribution necessary to reach mass audiences. Even light comedies and other productions specifically aimed at a wider audience, such as the *Trailer Park Boys* television series, reach fragmented audiences because they air on specialty cable channels rather than more widely available networks such as CBC and CTV. This makes the role of archives considerably more difficult if the aim is to preserve the cultural works enjoyed by contemporary Canadian audiences. If popularity is the chief criterion, selection would give priority to the most-watched Canadian television show in English-speaking Canada, *Canadian Idol*. The program is an example of the talent contests that have been popular since the earliest days of broadcasting, so archiving some shows may be of interest to students of broadcasting and popular culture, but popularity should not equate to a “keep-all” decision. Similarly, measures of audience reception such as attendance figures cannot be a major criteria for Canadian feature film, particularly feature films produced outside Quebec (feature films produced for the Quebec market routinely attract larger audiences than the English-language films produced outside Quebec³). Archivists constantly have to weigh the relative importance of the popularity of cultural works against the importance of the critical acclaim garnered from media critics and scholars. Critics and scholars often do not like the same productions that capture the attention of the public. Always at the back of an archivist’s mind is that centuries from now there

3 Audience preference in English Canada for American films is only part of the explanation. Canadian films for the English-speaking market also suffer from a lack of promotion and lack of access to theatre screens. This has even been the case for *Bon Cop, Bad Cop*, a bilingual film created to appeal to audiences across Canada. See Brendan Kelly, “Canada’s cinematic solitudes,” *The Montreal Gazette* (reprinted in *The Ottawa Citizen*), 12 October 2006, p. E8.

may only be a small quantity of archival films and broadcasts, a possibly misleading time capsule skewing notions of what film and broadcasting were and what they meant. The challenge of archival collections is to strive for some sort of balance between highly-rated programs and the works praised by contemporary critics and scholars.

The 1986 article on selection criteria for television is in the tradition of most writing on selection criteria, in that it focuses on specific productions. As Ernest J. Dick has pointed out, archivists need a sophisticated knowledge of media history and production in order to carry out selection on the level of individual programs.⁴ These articles also presume that the archivist is choosing from the entire surviving output of a production company, network, station, or individual, whereas the scope of materials offered to archives, particularly by individuals, tends to be incomplete. Another difficulty is that archivists often do not have detailed information about the contents at the time they need to make selections. As Dick advocates, a focus on genres can enable the archivist to build a collection of broadcasts representing the creative range of television and radio program types and styles over time. This present article addresses other issues that get less attention in writing about selection criteria, but which are major factors in how archivists decide what to acquire, including: the production environment (how it affects what is created and where it ends up), archivists' ability to find out more about potential archival records, and the impact of technology.

At the time that Ken Larose and Josephine Langham wrote about Canadian film and broadcasting, archivists and scholars were awakening to the fact that a number of films, videos, and sound recordings had managed to survive in major cultural institutions such as the CBC and the NFB, in film laboratories, private-sector broadcasting networks and stations, and in the hands of individual creators. Since that time, the creative environment, market, and modes of distribution for Canadian cultural works have changed radically, shifting the locations where archival moving images and sound recordings are most likely to be found. Underlying most thinking about selection criteria is the idealistic view that archives have the resources to identify significant creators and carry out a highly active program of contacting potential donors and maintaining contacts with individuals and organizations. In reality, most archival acquisition strategies gloss over the amount of time and other resources such work requires. It takes time and skill to build and maintain a relationship of trust with donors. The resources required to process and maintain collections also have to be factored in. This is particularly true of moving images and sound recordings, which challenge archivists and conservators to build and maintain

4 Ernest J. Dick, "An Archival Acquisition Strategy for the Broadcast Records of the Canadian Broadcasting Corporation," *Historical Journal of Film, Radio and Television*, vol. 11, no. 3 (1991), pp. 253–68.

knowledge of a range of analogue and digital formats and playback technology. As the technology used by creators changes, archivists and conservators have to be able to keep up.

The expense of preserving audiovisual media means that Canada's regional and local repositories have always had a difficult time funding such activity. Training is also vital given the sheer technical difficulty of handling media such as motion picture film and the need for familiarity with numerous analog and digital-recording media. It is often difficult for smaller institutions to gain access to the expertise required to manage audiovisual collections. In large institutions such as LAC, staff can still get help from a number of media specialists working in acquisition and conservation. Moving images and sound recordings are not, however, a major focus of archival training programs in Canada. Retirement is looming for another generation of archivists and conservators who have decades of on-the-job experience working with moving images and sound recordings.

Acquisition programs need a strategic approach to identifying the most efficient ways to acquire the most significant materials in the Canadian production environment. The decentralized mode of much of Canada's film and broadcasting production makes it more difficult to establish and maintain acquisition contacts. Canada lacks film production studios. This means that most Canadian feature films are the product of independent companies that tend to form in order to make a particular film and then morph into different companies to make other films. Independent production is also the mode for many short films and videos. In a sense, the acquisition contact becomes a moving target, based on individuals rather than long-established companies, and scattering the archival records of film and video production among various locations.

Feature film, the term used to describe a film of at least one hour in length, usually fiction and released first in theatres, has been the most desirable form of film production in most countries since the American film industry achieved market dominance by the 1920s. Canadian filmmakers dreamt of achieving the same kind of creative and financial success as their Hollywood counterparts, but it was not until the federal government began providing financial support through the Canadian Film Development Corporation in 1968 that there was enough money to engender a steady output of feature-length films. Given the status of the feature film as the highest achievement of film as a creative art, it follows that film archivists have also prioritized the acquisition and preservation of this form of the motion picture. LAC, for instance, has been active in seeking out feature films of the past and present since 1969. Its general approach has been to try to acquire a comprehensive collection of Canadian feature films, in the best format available. It cooperates with other Canadian archives, film libraries, and cinémathèques to avoid acquiring the same films. LAC staff have refined selection criteria to exclude

films by non-Canadian directors who shoot features in Canada under co-production deals, and to include films made in other countries by Canadian directors when such films are award winners, or the entire oeuvre of a director is targeted as noteworthy.

LAC has a useful mechanism for acquiring current moving images and sound recordings: legal deposit. Legal deposit enables LAC to acquire published versions such as CDs of radio broadcasts and DVDs of films and television programs. Quebec also has legal deposit for moving images and audio recordings. The Cinémathèque québécoise uses legal deposit to acquire films and television programs made by people living in Quebec or whose principal place of business is in Quebec. Bibliothèque et Archives nationales du Québec (BanQ) is the legal-deposit repository for published works such as music and audio books. The major distinction between legal deposit in Quebec and legal deposit at the national level is the required format. Quebec requires the deposit of a new print for moving image works produced on photochemical film and of a broadcast-quality copy for other works; because the legal deposit of materials at LAC only requires the deposit of the published form of the work, it does not require creators to provide copies of works on master formats such as 35mm film or broadcast-quality videotape.

As with any such program, staff need to monitor for compliance. This takes resources, and creators do not always comply. In the absence of a legal deposit system for all formats of Canadian moving images and sound recordings, LAC has developed alternative mechanisms for acquiring archival-quality copies of films and videos. One example is the agreement it negotiated with Telefilm Canada, which is unique to LAC. For feature films receiving financial support from Telefilm Canada, the creators must provide LAC with two 35mm prints for every feature film budgeted at \$1 million or greater, one broadcast quality Digital Betacam videotape master, and one professional quality half-inch VHS video cassette or DVD. For every feature film costing less than \$1 million to produce or shot and delivered only on high definition or digital video, the creator must provide LAC with one broadcast quality Digital Betacam videotape master and one professional quality half-inch VHS video cassette or DVD. LAC contacts filmmakers directly to acquire works that predate Telefilm or to obtain additional printing elements such as negatives for titles of particular merit. LAC has also negotiated an agreement with the Canadian Television Fund; under this agreement, recipients of Canadian Television Fund money must supply broadcast-quality video copies to LAC.

In the first several decades of television, networks produced most of their own programs. Master agreements with networks were a highly effective means of acquisition for LAC, insofar as the networks were willing to part with their holdings of films, videotapes, sound recordings, and records in other media. LAC has acquired large collections of news, cultural programming, sports, and other content by means of agreements with the CBC and

Télédiffuseurs associés (TVA), and to a lesser extent in the 1970s and 1980s with CTV and Global. Increasingly, networks in Canada co-produce or distribute programs made by others, so any comprehensive acquisition program for television has to expand beyond agreements with the traditional networks. The dozens of specialty channels that have sprung up are mainly distributors of programs made by a range of production companies. The role of independent television stations has also changed; fewer local stations can afford to do local programming, apart from news.

Telefilm Canada and the Canadian Television Fund are significant sources of financial support for the production of current Canadian television programs with cultural content, including dramas, documentaries, comedy series, and biographies such as the *Life and Times* series. As previously mentioned, agreements with Telefilm and the Canadian Television Fund require producers to provide copies for donation to LAC. Cash-strapped producers sometimes balk at providing archival-quality copies on professional video formats. Nonetheless, for LAC, this has been an efficient means of acquiring a range of broadcasts that meet criteria of cultural merit and Canadian content. It also enables LAC to acquire productions shown by specialty channels as well as the older networks, productions that would otherwise be more expensive to acquire due to the time and money needed to do research and negotiate donation or purchase agreements with the individual creators.

The radio market has undergone a number of changes since *Archivaria* published Josephine Langham's article in 1979. She lamented that radio had lost much of its impact, diversity of content, and status as a major art form. Private radio in Canada has carried less content about performing, visual, and literary arts than has the government-subsidized CBC. It has always been difficult for private radio to find the financial resources to produce programs such as concerts, dramas, and arts magazines because such programs are more expensive to create than recorded music shows and news headlines. Most stations began as independents, without the financial resources of a network. Even now, when media conglomerates such as Standard Broadcasting and CHUM own dozens of radio stations, much of their output is local news and recorded music. Changes in CRTC content regulations at the start of the 1990s reduced the incentive of FM radio to produce information programming. This prompted many stations to cut much of their news and information programming, including coverage of the arts such as interviews with authors and musicians. Much of the cultural content on private-sector radio is now found in community and campus radio, including many programs in languages other than English and French, but few such programs have made their way into Canadian archives. New delivery technologies such as the Internet and satellite are putting more pressure on radio, making it easier for Canadian audiences to get American programming that further erodes audi-

ences for made-in-Canada broadcasts. A significant challenge for archivists is to find the time to gain a detailed knowledge of the programming in private-sector radio and to make acquisition contacts.

The situation is better with CBC recordings. A master agreement with the CBC has enabled LAC to acquire a comprehensive set of radio broadcasts from the late 1930s to the mid-1960s, as well as various later series and specials. As with television, regional archives hold major collections of CBC radio productions produced in various regions of Canada. CBC Radio remains the most significant single source of cultural programs. Compared to private-sector broadcasters, CBC benefited from public-sector financial support for both production and an archival program that has steadily improved since 1959, when CBC founded its radio archives for English-language broadcasts. The French-language service, Société Radio-Canada, founded its archives soon afterwards.

One of the biggest problems faced by archivists trying to develop acquisition policies and selection criteria for moving images and sound recordings is the lack of comprehensive information about past and current productions. In 1978, John Twomey decried the lack of resources for basic research into Canada's broadcasting history.⁵ Finding information today remains difficult, even with vastly improved means of access such as the Internet. Archivists researching film production have faced the same degree of difficulty. For an effective cultural acquisition program, Canadian archivists need clearer, more accessible information about what was created and especially what still exists, not only to avoid duplication but also to clearly understand the cultural significance. Books and journal articles exist, of course, but the ideal source would be an online inventory combining titles, production credits, synopses, available formats, rights information, and locations.⁶ Archivists and researchers need a comprehensive, up-to-date resource modelled on *Film/Video Canadiana*, a detailed catalogue of films and videos produced in Canada from 1969 to 1995. Initially produced in printed form, the final two versions were produced on CD-ROM in 1993 and 1995. Its production was labour-intensive, requiring at least two full-time employees who sent out questionnaires to producers and maintained an up-to-date directory of Canadian production companies published in each issue. *Film/Video Canadiana* remains a useful tool for acquisition and cataloguing because of the careful research and edit-

5 John Twomey, *Canadian Broadcasting History Resources in English: Critical Mass or Mess?* (Toronto, 1978).

6 Very useful models are the regional filmographies *Eastern Eye: A Nova Scotia Filmography, 1899–1973*, <http://www.gov.ns.ca/nsarm/databases/easterneye/filmography.asp?ID=1403>; Colin Brown, *Motion Picture Production in British Columbia, 1898–1940: A Brief Historical Background and Catalogue* (Victoria, 1986); and Dennis J. Duffy, *Camera West: British Columbia on Film, 1941–1965* (Victoria, 1986), including *New Information on Films Produced Before 1941*.

ing that went into it. Staff were diligent in making contact with creators to engage their participation and researching other sources such as the trade press. It is the type of resource that needs to be available on the Web. LAC is in the process of updating LAC archivist D.J. Turner's meticulously researched *Canadian Feature Film Index 1913–1985*, adding entries for films produced since then, and plans call for this to be available on the Web.⁷

There are no A to Z encyclopedias of Canadian radio or television broadcasts, although for English-language production there are several useful but incomplete substitutes. For television programming, there are indexes to CBC series in printed form and online, but none are complete and they do not provide up-to-date details of existing holdings.⁸ The Canadian Communications Foundation website lists descriptions of a number of CBC English television network series as well as some CTV and Global television network series.⁹ The book *TV North: Everything You Wanted to Know About Canadian Television* is a guide directed to a general rather than a scholarly audience. It is useful insofar as it is the only book listing English-language television series from public and private producers, although it makes no claim to be complete.¹⁰ Typical of most books directed to a general audience, the book lacks information on production companies when those companies differ from the broadcast network, a key piece of information for researchers, and provides varying degrees of detail for each series. Researching radio programming is particularly difficult. There is no series-by-series directory to Canadian radio, although the *Guide to CBC Sources at the Public Archives* provides some aggregate information for series held at LAC such as *As It Happens*, *The Dance*, *Flanders Fields*, *Radio-College*, *Métro-Magazine*, and *Présent*. For English-language radio drama, Howard Fink of the Concordia Centre of Broadcasting Studies coordinated the production of two essential reference tools based on Concordia's extensive collection of CBC English-language radio drama scripts, the *CBC Radio Drama Bibliographies Databases*, together covering CBC radio dramas from 1925 to 2000.¹¹ For French-language radio and television drama, Pierre Pagé and Jean-Yves

7 D.J. Turner, *Canadian Feature Film Index 1913–1985* (Ottawa, 1987).

8 See Ernest J. Dick, *Guide to CBC Sources at the Public Archives* (Ottawa, 1987), which includes English and French programming held by Library and Archives Canada up to 1985 and *Directory of Television Series 1952–1982*, an online alphabetical index to English-language television series produced in Canada during that period and broadcast by the CBC, by Blaine Allan of Queen's University, <http://www.film.queensu.ca/CBC/Index.html#Top> (accessed on 27 November 2006). The sources are comprehensive for English network productions for that time period, but there are many regional and local productions not listed.

9 See <http://www.broadcasting-history.ca/index3.html> (accessed on 27 November 2006).

10 Peter Kenter, *TV North: Everything You Wanted to Know About Canadian Television* (Vancouver, 2001).

11 See <http://ccbs.concordia.ca> (accessed on 27 November 2006).

Croteau have written comprehensive guides.

Some of the best sources of information about radio and television programs and broadcasters of the past remain buried in unindexed periodicals and trade papers such as the CBC program schedules *CBC Times*, *La Semaine à Radio-Canada*, and *Ici Radio-Canada*, and the CBC staff magazines *Radio*, *Radio/TV*, *Closed Circuit*, and *Circuit Fermé*. For private broadcasting, examples of useful but unindexed sources include the rare 1940s fan publications *Radio World* and *Radio-Monde*, and the trade paper *Canadian Broadcaster* and its successors *Canadian Broadcaster and Telescreen* and *Broadcaster*. For film, unindexed trade papers such as the *Canadian Moving Picture Digest* and the *Canadian Film Weekly* contain much information on Canadian films, film industry personnel, production companies, distributors, and exhibitors. An ideal solution would be to make digital scans of such publications available on the Web, assuming that rights could be cleared. A viable financial model is unlikely given that projects to scan Canadian newspapers, begun with much fanfare in the late 1990s, seem to have stalled, probably because production costs outweigh revenue. Failing that, some form of indexing would still be an excellent source for the study of Canada's forgotten film and broadcasting history.

A major source of information about film and broadcast production in Canada are the websites of individual production companies. Although useful, they are not intended to be a permanent reference tool. Networks like the CBC, CTV, and TVA maintain in-house automated catalogues, but these are not available to the public. Even printed sources such as the Canadian edition of *TV Guide* are giving way to Web-only versions. The chief means of finding out what is on private radio are the webpages of individual stations. Smaller-scale creators such as independent producers of films and videos that do not get theatrical or broadcast release might not have the resources to have their own sites, so tracking down information about such creators and their works is a challenge. The shift from print publication challenges archives to find ways to keep Web-based information available.

An important source of moving-image and audio materials are freelancers and other individual creators, but compiling information about these creators and their works has yet to be accomplished. Individual creators may not be the holders of archival-quality materials. They may only have easily-stored and accessible copies on audiocassette, VHS or DVD, or perhaps a film print or two. Many individual creators do not have sufficient space and climate-controlled storage for original elements. The physical ownership and custody of film prints and printing elements may reside with production companies, distributors, or laboratories. LAC is creating and maintaining information about Canadian film productions and their rights, although this information is being gathered as an acquisition tool for LAC archivists and there are no plans to make it available outside the institution. It is also trying to maintain a

record of the location of prints and printing elements held in other archives and cinémathèques, as well as less-accessible sources such as bonded warehouses and laboratories. It is especially difficult to track down elements at warehouses and labs since such information is not public and filmmakers themselves may have lost track of the location of their material. LAC is doing similar research as part of its acquisition program for short films, which may ultimately turn out to be more important as expressions of Canadian culture, in all its variety, than are feature films.

Online tools provided by the websites of the AV Preservation Trust and Archives Canada help archivists find at least aggregate collection or fonds-level information about similar holdings in other heritage institutions. To the extent that institutions provide searchable online databases at the item level, archivists have a useful appraisal tool. The British Columbia Archives website is an example of a good resource for item-level description of moving images. In addition, the Film, Video, and Sound section of LAC's online catalogue is a comprehensive listing of more than 350,000 films, videos, and sound recordings. Online catalogues need to be fully searchable, with common search tools for aggregate descriptions, item-level descriptions, details of the formats held and their physical condition, and any additional information found in finding aids.

Although Canadian heritage institutions and creators have come a long way in recognizing that moving images and sound recordings have their place in archives, there remains considerable evidence that these media suffer from a failure on the part of creators and archives to understand what makes them archival. Archives have not done a good enough job explaining to creators what archival processing means, how much work it involves, how the labour of archivists elucidates the archival value of the material, and how archivists need help from creators. Archivists need to do more to educate creators about what they need to do to preserve the nature of their materials as records rather than just content, and that this activity needs to happen from the point of creation.

One of the unnecessary difficulties faced by archivists is the impact of consistently poor recordkeeping by individual creators. Many do not create or maintain inventories of their records and do not label films, videos, and sound recordings in sufficient detail. They leave it to the archivist to figure out the life stages of a record, from draft to final version, original to copy. Also frustrating is the lack of identification of various drafts of scripts, contracts that clarify rights, and shotlists of unedited footage. Most people will confess to having quantities of poorly-identified or unidentified and disorganized personal photographs, videocassettes, CDs, and DVDs at home, so it is perhaps unfair to hold creators to higher standards, but the overall lack of recordkeeping among freelancers and other individual creators is especially surprising, particularly since the materials represent their livelihoods.

Because most donors of cultural works continue to hold long-term rights, poor recordkeeping creates significant problems for archivists that creators may not realize. Archives enable creators to continue to benefit from those rights by preserving the materials and informing the public about them. This is in addition to the immediate benefits archives usually offer to donors in the form of purchase, copies, or tax credit. For creators working with contemporary media, where playback equipment still exists and there is no reason to worry that playback will damage the material, archival institutions should be more prepared to at least insist upon lists and preferably more detailed description of the records. This more detailed listing, and hopefully accompanying description, would greatly assist archivists to carry out a number of archival functions, most notably appraisal, selection, and the management of access. Nevertheless, there will always be a role for archivists in the critical appraisal of content and physical quality. A major reason for this is that creators, especially those seeking a tax credit or a sale, will be naturally less inclined to provide a frank assessment of the deficiencies of a recording or a collection, and some tend to insist on keeping everything in the belief that quantity raises the appraised value. Even when donors are not the creators, and hence may not be able to provide the same degree of insight into the material, archivists should at least provide them with guidelines on how to prepare a basic inventory and require them to do so.

Given that cultural works in moving images and audio usually exist in more than one copy or format, it is important for archivists to be able to find out whether they are being offered the donation of an original or a copy of a work that exists in another institution and possibly in a better-quality format; but this research is time-consuming and impractical for every title in a large collection. VHS videocassettes and audiocassettes are the bane of existence to audiovisual archivists, as much as photocopies are to textual records archivists. In their efforts to promote moving images as documentary heritage, archivists have inadvertently convinced too many people, for example, that collections of VHS cassette recordings made by VCRs and audiocassettes of programs taped from the radio are worth preserving. Given the apparent lack of comprehensive archives of much of Canada's private-sector broadcasting, it is probable that these kinds of off-air recordings from local radio and television stations are unique. Their content might justify acquisition even though their technical quality is not broadcast quality. Off-air recordings of network broadcasts, however, are unlikely to be unique because networks archive more of their own productions.

Often, creators keep too much. In the case of film, the likelihood of outs and trims, multiple takes of a sound-track, or work prints being of major significance is slim. The donation of this material is particularly frustrating when a creator has not kept the final production because the archives requires it to use as a model when trying to reconstruct it from surviving elements.

Keeping too much also creates problems for archivists. Typical of many creating organizations, CBC Television kept more tapes and films than was required to reconstruct and preserve many of its productions. By the 1990s, it had implemented criteria using a hierarchy of film and video formats that distinguish the essential stages in the life cycle of any given work from the unnecessary.¹² Examples of recordings to be kept indefinitely to preserve CBC video productions include air tapes, production dubs, and related multi-track audio mixes. The policy instructs CBC to review extraneous elements one year after the production, including video rushes, rehearsal records, and material obtained from non-CBC sources. Common sense dictates that any selection based on format has to start from what survives, rather than eliminating all holdings just because the top priority elements are not present.

Specialists in the archiving of moving images and audio recordings have always had to deal with the threat of format obsolescence. Until recently, the impact of change has been felt mostly in sound and video recording. Since the 1986 *Archivaria* article on television selection criteria, the conservation format used by LAC for video changed, for example, from two-inch helical, one-inch C-format, D2 and Betacam SP, to Digital Betacam, in an effort to keep up with changes in the video production industry. LAC has had to maintain the ability to acquire and provide copies on any formats used by broadcasters. Another problematic format is half-inch open-reel video, a format used principally by small-scale producers such as schools and independent video makers in the 1970s. Such videos often constitute the only record of culturally significant material. The informational and aesthetic value is diminished by the inferior image quality of this non-professional video technology. Furthermore, it is extremely difficult to find playback equipment for half-inch open-reel video. Small-scale low-budget creators moved to easier-to-use cassette formats such as U-Matic and VHS. U-Matic is close to being obsolete because neither it nor the playback equipment are still manufactured. An example of cultural content on half-inch open-reel video in LAC holdings are some National Arts Centre performances. The Centre also used three-quarter-inch U-Matic and VHS cassettes. The various camcorder formats in use in the 1990s and 2000s are likely to create similar problems for archives because they will need to have a range of playback/record equipment.

Audio-recording formats were relatively stable from the 1950s to the 1980s because of the widespread use by professionals of reel-to-reel tape and the popularity among both professionals and the public of the compact cassette from the 1970s to the 1990s. Formats such as microcassette, minicas-

12 *CBC/SRC Moving Image Archives Program Information and Image Asset Management Policy*, draft, 28 May 2001, unpublished CBC document in possession of the author. For a detailed discussion of the issues pertaining to the archiving by CBC of its records, see Ernest J. Dick, "An Archival Acquisition Strategy," pp. 253–68.

sette, and minidisc have not achieved as much market penetration. The formats are giving way to CDs and file formats like MP3. It is now getting more difficult to find reel-to-reel audio equipment and materials such as reels and splicing tape.

Amidst this technological flux, motion picture film has seemed like an oasis. The composition of film stocks changed, but film gauges have remained standard and the basic methods for processing, editing, and projecting would be recognizable to film producers from the early years of the twentieth century. When Ken Larose wrote in 1978 about the challenges of archiving film, 35mm prints met a basic archival standard to document the intent of the creators and the experience of the moviegoer on a format more durable than video. Video production was not sufficiently developed to provide filmmakers with sufficient resolution to compete with the image quality of motion picture film. Acetate motion picture film was unquestionably the format of choice for preserving the aesthetic value of a film. Larose was concerned because Canadian feature films made it into relatively few theatres and hence distributors did not produce a large number of prints. Archivists might only be able to choose from a few surviving release prints of any particular Canadian feature. Acquiring only a release print can be a problem because even the most careful projection will result in some scratches and other wear on a print. It was also around that time that the problem of film fading due to the chemical degradation of dye in film stock was becoming apparent. Ideally, the best possible film elements for long-term preservation of the aesthetic and technical properties of a motion picture shot on film are the undamaged negatives and soundtrack from which a pristine print can be struck. This is the purist approach, practical only for well-funded preservation labs, and hence impractical for most archives except for major film studios.¹³ Canadian feature films are at risk because, unlike the United States, Canada does not have major film studios with the financial heft to pay for restoration projects. In Canada, many films are made by independents who store their film elements in private-sector labs. As for greater access, many Canadian films are not available as DVD releases because the producers do not have sufficient funds to make them. When preserving older films, film conservators have to contend with the differing properties of newer film stocks. The problem of trying to

13 Feature film restoration, using state-of-the art technology, is really only practical for the major film studios. They have the resources and financial incentive to do so, being rights owners and hence able to profit from the re-release of restored films in theatres and DVD distribution. Digital technology has made possible the restoration of parts of films, but the use of traditional photographic techniques, such as optical effects, is still the best means of restoring some images. Digital technology has proven to be more satisfactory for the restoration of movie soundtracks because it preserves original content with less difficulty than image restoration. For a detailed explanation of the use and limitations of digital techniques in film restoration, see "Special Report: Protecting Our Heritage," *American Cinematographer* (November 2001), pp. 84–110.

preserve the appearance intended by the creator is already difficult because of the differences between printing processes and film stock of the past and present. For selected titles, LAC archivists negotiate the donation of a comprehensive set of the printing elements used to produce films, such as prints, negatives, soundtracks, and A & B rolls (two rolls of edited film negative of equal length, woven together to make a print that shows effects such as fades but not the splices).

Often, LAC archivists order motion picture film prints directly from commercial laboratories. Although this is a complicated and time-consuming process, paying a lab to make a new print from the best surviving elements results in a better-quality copy than the used prints typically available from the filmmaker. The basic workflow for LAC's short film and feature film acquisition programs demonstrates the labour-intensive nature of acquisition. To start, the archivist does research to select the desired titles and then contacts filmmakers to negotiate the acquisition. If there is a production company in addition to the individual filmmaker, the archivist also contacts it since both are rights holders. The archivist asks the filmmaker to deliver the original elements to the laboratory used by the archives and negotiates the price with the lab to produce a print. Other treatment, such as scratch removal, costs extra. Archives' staff inspect the new print for satisfactory quality, and then pay the lab and shipping company. Typical prices for short films, defined as productions no longer than thirty minutes, are nine hundred dollars for 16mm colour film and fifteen hundred dollars for 35mm colour film. The average cost for a print of a 35mm feature, defined as a work of at least sixty minutes, is three thousand dollars. This does not include additional costs, such as handling charges to withdraw the film elements from storage in a commercial lab or another archival repository.

The biggest change in the archiving of moving-images and sound recordings has been the rapid shift away from analog to digital. Change was already a constant with audio and video. Even so, the move from a physical object such as Digital Betacam videocassette or a CD containing MP3 files to less tangible audio and video digital files sitting on a server requires a leap of faith. The adjustment will be more difficult for motion picture film, for which so much of the inherent aesthetic value is associated with the technical quality of the image. The gradual adoption of digital production in the motion picture industry is raising questions about the future of traditional motion picture film and just how rapidly and completely it will be replaced by digitally-produced moving images.

Archivist David Francis presents a bleak future for motion picture archives when manufacturers stop making non-digital motion picture film and film-

14 David Francis, "Challenges of Film Archiving in the 21st Century," *Journal of Film Preservation* 65 (2002), pp. 18–23.

making becomes fully digital, probably within the next twenty years.¹⁴ He presents three stark choices for film archives: continue to work with nitrate, acetate, and polyester film stock; attempt to work with a mix of film stock and digital images (the choice for any archives with a mandate to acquire both past and current productions); or abandon film stock entirely, transferring all film to digital and acquire only digital works. Even when archives attempt to keep some titles on film stock, it will be increasingly difficult to find laboratories to make new prints for preservation and access. Since the 1990s, LAC has had to upgrade its capacity to print and process motion picture film, a function not foreseen in the planning for its preservation laboratory. Before that, it had already been doing frame-by-frame optical printing of difficult formats such as 28mm because the rareness of the format meant that no commercial labs were set up for this. Commercial labs are now almost exclusively printing 35mm colour for theatrical release prints and there are few labs still processing 16mm film. Black-and-white printing in either 16mm or 35mm is almost impossible to order from a commercial lab in Canada.¹⁵ LAC needs to outsource printing of colour stock and film with sound tracks. Print stocks are also getting harder to find. As with still photography, manufacturers such as Kodak have drastically scaled back their production of film. The company has expressed a willingness to continue making black and white stock, a need identified by film archives, but archives customarily have not provided a large enough market for companies to continue smaller product lines for moving-image and audio media.¹⁶

The film industry has begun its first steps to distributing films through satellite feeds to digital projectors in multiple theatres, doing away with the need to make multiple film prints for shipment to theatres. This means theatres have to upgrade to expensive digital projectors. The downside is that even fewer projection prints will be available to archives. If the projected medium is a digital file, the particular aesthetic and physical properties of film risk being lost.

Many film creators and conservators fear that digital media will never be able to fully replicate the aesthetic qualities of motion picture film stock, a critical factor in evaluating artistic significance. Not all filmmakers are embracing the technology, but some creators, particularly independent producers, welcome the greater access to the means of production because equipment is relatively less expensive. Other advantages include being able to

15 Only one major lab, Technicolor Vancouver, still processes colour 16mm motion picture film, a problem for makers of short films, who favour 16mm because of its lower cost. The Toronto lab Black and White Film Factory prints black-and-white 35mm, 16mm, 8mm, and Super 8mm films.

16 For more on the future of black and white film stock at Kodak, see "Kodak: The Past, Present and Future of Motion Picture Film," *Association of Moving Image Archivists Newsletter* 74 (Fall 2006), p. 15.

create visual effects previously not possible, ease of handling, and the need for less storage space.

Preservation of moving images and audio have always been a challenge because migration to newer formats is the only way to extend the life of the works into the future. Digital technology promises some solutions. For audio and video, digital can improve the quality of reproduction and facilitate access. When the technology arrived in the 1980s, it promised no degradation between the original and the copy, but there have been some hiccups. Examples are the mid-1980s pulse-code modulation audio format, also known as DVHS, and the R-DAT audio format, both of which failed to find a large enough market. The short-lived video format D2 suffered from technical glitches. For the broadcasting industry, digital technology has improved to the point where it is aesthetically satisfactory and a much easier and cheaper means of production and distribution of the product. Digital recording media are less expensive because they can store more information, although highly-compressed formats such as audio MP3 files are access formats not preservation formats. The extravagant claims of digital technology still tend to gloss over the quality problems inherent in compression and the compatibility problems built into proprietary software and hardware.

The tendency among archives, particularly among staff unfamiliar with the typical challenges posed by moving-image media, is to underestimate the costs associated with digital solutions. It is disconcerting to hear proposals to scan analog films, videos, and audio and then discard the originals, as if the scanning process is somehow cost-neutral. If films are scanned digitally and the original films are not kept, archives and researchers will lose the ability to gain more understanding of the physical composition and properties of film stocks. The technology now exists to treat faded film, but the technology is expensive. It costs more than one million dollars for film-to-digital scanner and colour correction equipment, a modest set-up by film industry standards. The operation of the equipment at its full potential requires extensive training. For example, LAC's digital scanner outputs to a video and can output to a digital file, but it does not restore the film itself, and colour correction requires a deft mix of software and hardware manipulation and judgement as to what the original colours should have looked like, especially since there are seldom reference points such as unfaded prints or production stills. Scanning and colour correction is still a frame-by-frame operation. It can take weeks to scan and colour correct a feature-length film. For born-analog media, particularly motion picture film, scanning to digital is still chiefly a solution to access, not preservation. It is a compromise, just like copying some films to video rather than to film is considered adequate for access to titles with lesser aesthetic or historic significance.

For works of historical and sociological value, migration to digital technology will probably be adequate to save the essential informational qualities,

but for cultural works, saving the original may be vital to preserve the aesthetic value. For the archivist acquiring cultural works, the challenge is to acquire on the best-quality format that is the most faithful to the aesthetic properties of the original. Few archives have the time to ponder issues such as whether surviving copies of a work truly reflect the intentions of the creator and whether the choice of format for the archival copy can save all of this information. The volume of recorded cultural works already in existence makes it doubtful that archivists will be able to save everything during the dwindling lifetime of analog playback equipment. An unspoken aspect of selection criteria is that preservation decisions often embody a differential approach, with works deemed to have a particularly noteworthy value because of rarity or particular aesthetic merit getting especially careful preservation treatment. Archivists may be forced to make difficult choices, relying on criteria such as award winners, or the reputation of a film or broadcast as a classic in the development of the visual, performing, or literary arts, or as epitomizing a valued skill or technique. Works of cultural significance place the archivist squarely in the unenviable position of judging artistic merit. Given that critics and audiences so often vary in their acceptance of a cultural work, it is difficult to see how an archivist can do any better without benefit of hindsight. Most articulations of selection criteria advise that archives allow for a passage of time between the date of creation and final selection, a sensible suggestion that gives the archivist time to take the long-term cultural impact of a work into consideration. The dilemma is that moving images and sound recordings are technology sensitive, putting them at risk of being inaccessible if archives wait too long to migrate them. It is tempting to hope that born-digital records will solve this problem by permitting cheaper and easier automatic ingest, facilitating subsequent review for permanent retention.

For a number of years moving image archivists have been engaged in a vociferous debate about the wisdom of moving from tangible, physical formats such as Digital Betacam videotape to preservation of digital moving image files on a hard drive. The essential problem is that although this solution frees archivists from the problem of having to migrate from one physical tape format to another, one step ahead of format obsolescence, hard drives are also physical formats subject to damage. They are also dependent on compatible hardware and are secure only insofar as the files they contain can be read by the software of the future.

Digital technology should make it easier for donors to provide production-quality copies to archives. They may themselves keep more of their moving image and audio works because the digital files will take up less space, but the nature of digital production means that there may be less pre-production material created equivalent to analog work tapes and outs. This means the loss of ability to track the development of a work from idea to final product, but it also means less work for the archivist trying to identify a mass of material and

whether it fits together. A danger is that it will be easier, with the click of a mouse, to delete digital files holding cultural works than to physically destroy film cans and tapes. Another risk, identified in the pioneering work being done by the International Research on Permanent Records in Electronic Systems Project (InterPARES), is that some creators will fail to protect their digital works because they will not record information necessary for access and retrieval. Essential information includes the context of the works, notably when, why, and by whom they are created, the identity of rights holders, and details of the software and hardware used.¹⁷ Digital technology is so new and in flux that there are limits to how much advice archivists are able to give to creators, but archivists learned some lessons the hard way in the analog world of moving image and audio, back in the 1970s and 1980s, and they still apply. What moving image and audio specialists already know is that the ability to archive moving images and audio recordings depends on the ability to access and copy them, some of the promise of digital technology is probably too good to be true, and the best chance of preserving the informational value of the work is for the creator to be engaged in recordkeeping from the start.¹⁸

17 See for example Jessica Bushey, *International Research on Permanent Authentic Records in Electronic Systems ((InterPARES) 2 Project: Experiential, Interactive, Dynamic Records: Survey of Record-Keeping Practices of Photographers using Digital Technology, Final Report for Participants* (28 August 2005), http://www.interpares.org/ip2/ip2_general_studies.cfm?study=29 (accessed on 15 November 2006). The challenges facing photographers, particularly freelance photographers, without the technical support available to staff of large creator organizations, are applicable to digital moving-image and audio production.

18 The author thanks the reviewers and LAC colleagues Caroline Forcier Holloway, Scott Low, Steve Moore, Todd Van Dusen, and Michele Wozny for their assistance in the preparation of this article.