

Opening the archive — online access and rights management

Ingrid Finnane, National Library of Australia

Two recent projects at the National Library of Australia have allowed us to increase accessibility of sound recordings while protecting the rights of participants in the recording. The audio management and delivery project resulted in an online delivery system for audio linked to time-coded summaries, and new workflows for managing deliverable content (digitized audio and XML summaries and transcripts). At this stage, content is only delivered online when the rights holders have agreed that access should be open for research, personal copies and public use. The rights management project developed a system to record various types of rights information from multiple sources in one place. It includes automatic calculation of copyright status based on information in catalogue records, information about agreements between the library and rights holders, and information about access permissions granted to an individual or organization by a rights holder. This paper will explain technical aspects of our digital collections management system and delivery system that allow us to provide access to open content while protecting restricted content. It will discuss how these systems could be used together with a rights management system to provide easier access to restricted content for authorised users.

A closed stack

The National Library of Australia (the Library) has a significant collection of sound recordings, consisting of oral history interviews, stories, speeches, musical and sound environment recordings. The collection is well described and over 50% has been digitised for preservation,⁸⁶ but until recently the Library did not have a way to provide immediate access to digital copies of recordings. The existing process for accessing recordings is as follows:


1. search in online catalogue⁸⁷
2. find a sound recording
3. login to catalogue with library membership details in order to place a request
4.
 - a) if in the library, request to listen to the recording onsite
 - b) if not in the library, enter a request for a copy to be sent through the Copies Direct service⁸⁸
5. library staff process the request including checking access rights
6.
 - a) a copy is delivered to the reading room for you to listen onsite
 - b) a copy is sent to you on CD or USB flash drive, with a printed transcript if requested.

Compared to the possibility of delivering digital copies of recordings through a web delivery service, this process of individual requests is time consuming for both library users and staff. Considering that the library owns copyright in most of the recordings, we saw an opportunity to provide more immediate and direct access to parts of the collection, while preserving the moral rights of people involved in the recordings and specific access and copying conditions set by the interviewee. This would benefit researchers around Australia and internationally who are not able to visit the Library in Canberra, or would need to travel significant distances to do so. Online delivery would make access faster and simpler even for onsite researchers, who would only need to click on a link to listen to the recording, instead of submitting a request and waiting for the listening copy in a reading room. It would also reduce the need for staff to process requests for open access material that had been selected for online delivery.

⁸⁶ Oral History and Folklore digitisation - progress so far <http://www.nla.gov.au/digicoll/audioprogress.html>

⁸⁷ National Library of Australia Catalogue <http://catalogue.nla.gov.au/>

⁸⁸ Copies Direct <http://www.nla.gov.au/copiesdirect/>



The Library had recently started producing time-coded TEI XML transcripts⁸⁹ of interviews through an external provider.⁹⁰ In theory, this gave us the ability to link text into time-points in the audio recording and assist researchers to navigate through interviews that could be several hours long, but we did not have a delivery system that supported this. Another potential use of full-text transcripts was indexing to enable easier discovery of the content through Trove.⁹¹ It seemed logical that easier discovery and access without needing to place a request would make the collection more visible and accessible to casual researchers, as well as those who were already aware of the collection.

Simple, fast, online access to the collection sounded like a great idea. So, what was stopping us putting it all up on the web for anyone to listen to?

The problems identified at the beginning of the audio delivery project were:

1. structural problems — resolving relationships between catalogue records (representing intellectual works) and records representing the digital objects;
2. absence of a delivery system that supported time-coded XML summaries and transcripts;
3. time-coded transcripts were produced by an external provider, but we needed a way to create time-coded XML summaries internally;
4. checking access rights to content and other legal risks.

Two sources of metadata

The born-digital and digitised sound recordings are managed through a digital repository system called the Digital Collections Manager (DCM), developed at the Library in 2002.⁹² Information about the sound recording collection, which had been managed in an independent database, was migrated into DCM in 2004-2005. The way the recordings were described in the Sounds Database and in DCM after migration was based on their arrangement on physical carriers (a reel or side of a tape) or digital equivalents (a file representing a single recording session). Often recording sessions are grouped together in DCM under a parent or collection level record, for example several interviews with different interviewees recorded on the same tape, or a collection of interviews by the same interviewer or on a particular topic. Creating a record for each physical item, side or file is an entirely appropriate approach when the aim of the collection management system is preservation and storage control.

The same sound recordings were described in the Library's catalogue, but divided into intellectual works, for example an interview with a subject or a recording of folk music that may involve one or several recording sessions. The relationship between the intellectual work described in the catalogue and the recording session or parent record in the DCM may be a one-to-one relationship at a parent or child record level, or could be one catalogue record to several DCM records. Creating a record for the intellectual work is an appropriate, standards based approach when the intention is discovery of the work.

Delivery online requires that the item be discovered as an intellectual work, and that the discrete components be provided in a logically structured order and relationship. Unfortunately, due to variations in cataloguing practices and recording practices over time, there was no way to reliably match records in the two systems automatically.

The solution we developed was to automatically create a new 'virtual record' within the Digital Collections Manager to represent each intellectual work in the catalogue, then allow staff to link the matching recording session or multiple sessions to this record. This made it

89 Text Encoding Initiative (TEI) Guidelines <http://www.tei-c.org/Guidelines/>

90 Transcripts are produced by VisionBytes in a TEI template supplied by the Library. <http://www.visionbytes.com/index.htm>

91 Trove discovery service <http://trove.nla.gov.au/>

92 Digital Collections Manager Functional Specifications <http://www.nla.gov.au/dsp/doms/dcm.html>

possible for us to develop a software service that generates a METS document⁹³ to describe the intellectual work, which automatically pulls information about sessions that belong to that work from the DCM database.

Building a delivery system

At the time of beginning the audio delivery project, we could not find any examples of existing delivery systems that would support delivery of summaries and transcripts with links to time-points in sound recordings. The Library had existing delivery systems for digital images⁹⁴ and a service to resolve persistent identifiers used to manage the digital objects.⁹⁵ The project developed a new audio delivery system that made use of the existing software infrastructure for resolving persistent identifiers, and added a new delivery interface and software services.

The audio delivery system uses a METS document that describes the sound recording sessions and summary to determine what files to deliver for a particular catalogue record. We developed a METS profile specifically for the purpose of delivering sound files with summaries and transcripts.⁹⁶

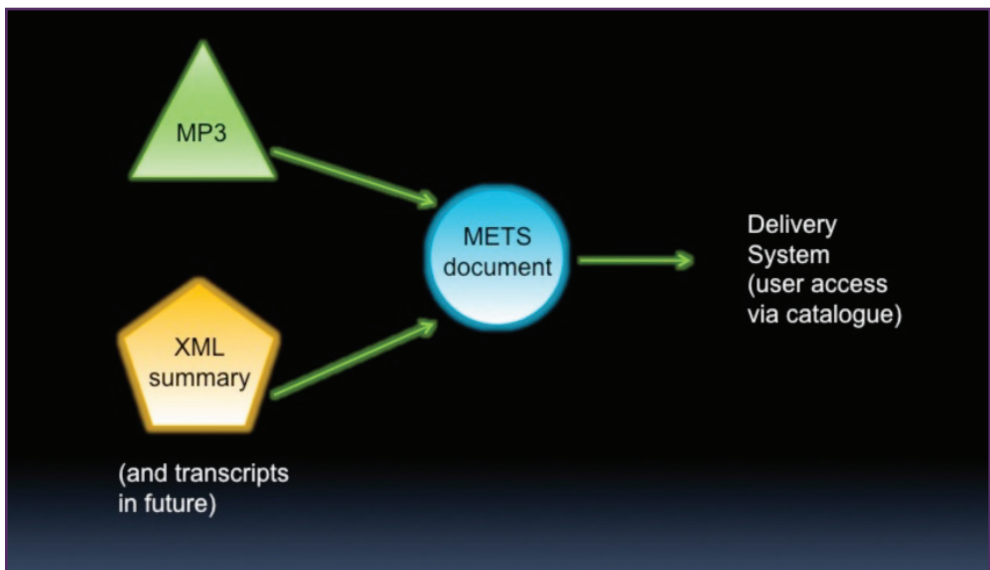


Figure 1. The METS document defines the files to be delivered and their structure in relation to each other.

The system delivers streaming MP3 files through a Flash player object⁹⁷ using a Wowza streaming server.⁹⁸ When a summary is available, it is displayed on the same webpage and JavaScript is used to link the time-codes in the XML document to time-points in the MP3 files. This means that a user of the delivery system can click on a section of the summary and jump to that point in the streaming MP3. The sound files and summary are also available for download, to accommodate access over slower internet connections that do not support streaming audio.

93 Metadata Encoding and Transmission Standard (METS) provides a flexible schema for describing digital library objects: <http://www.loc.gov/standards/mets/mets-home.html>

94 Digital Collections at the National Library of Australia <http://www.nla.gov.au/digicoll/index.html>

95 See Persistent Identifier scheme for digital collections at the National Library of Australia <http://www.nla.gov.au/initiatives/nlapi.html>

96 This is not yet a registered METS profile, but more information and an example are available here: <https://wiki.nla.gov.au/display/LABS/Australian+Sound+Recording+METS+Profile>

97 SWFObject <http://code.google.com/p/swfobject/>

98 Wowza Media Server <http://www.wowzamedia.com/index.html>

The screenshot shows the Digital Collections Oral History interface. The main content area is titled "Mem Fox interviewed by Rob Linn" and includes a video player with a progress bar at 00:00. Below the player is a table of sessions:

Session	Duration	Summary
Session 1 of 4	59:26	Mem Fox interviewed by Rob Linn
Session 2 of 4	60:26	Mem Fox interviewed by Rob Linn
Session 3 of 4	21:46	Mem Fox interviewed by Rob Linn
Session 4 of 4	35:36	Mem Fox interviewed by Rob Linn

On the left, a "Timed Summary" table provides details for the first session:

Start time	Summary	Keywords
00.00.00	Introduction	
00.00.52	Mem recounts her memories of her parents, Wilfrid and Nancy and her appreciation of them. Wilfrid was a pacifist who met Nancy at a Student Christian Movement (SCM) gathering. Wilfrid's charisma and ability as an educator was well known. His work in Zibabwe between 1946 and 1992. Wilfrid's mother, Amy Morgan Brock, described as 'faisly' and one who went outside the accepted social order. Amy's work in Montessori method teaching recalled. Returns to her father's great practical skills and his many interests, including his great faith. His teaching begins at Scotch College, Adelaide and his studies at the University of Adelaide. His service in the RAAF, despite his pacifism, and work as an Education Officer in the Second World War.	
00.08.55	Mem's mother Nancy was travelling secretary of the SCM and moving around Australia in the 1930s. She was at Sydney University and majored in Anthropology, studying under Margaret Mead. Nancy also met Christobel Fankhurst and encouraged a certain feminism. Relationship to the Methodist stream and George Whitfield from Nancy's family. Mem talks of her passion for public speaking and how that is something that runs in the maternal side of her family.	

Additional interface elements include a "View catalogue record" link, a search bar, and a "Back to top" button.

Figure 2. Audio delivery system — an example of multiple sessions with summary. <http://nla.gov.au/nla.oh-vn3603882>

The master audio files for born-digital and digitised sound recordings were already managed through the Digital Collections Manager. The audio delivery project provided additional software services and processes for bulk upload of MP3 files derived from Broadcast Wave File (BWF) master files using Dobbin audio processing software,⁹⁹ as well as TEI XML transcripts and summaries.

The screenshot shows the "Files available for download" section of the interface. It lists the following files:

File Name	Format	Size	Action
Summary	text/xml	29.0KIB	Download
Session 1 of 4			
48kbs	audio/mpeg	20.0MIB	Download
128kbs	audio/mpeg	54.0MIB	Download
256kbs	audio/mpeg	109.0MIB	Download
Session 2 of 4			
48kbs	audio/mpeg	20.0MIB	Download
128kbs	audio/mpeg	55.0MIB	Download
256kbs	audio/mpeg	110.0MIB	Download

Figure 3. Audio delivery system — example of summary and audio files available for download.

⁹⁹ DOBBIN features <http://www.cube-tec.de/dobbin/features.php>

Creating summaries

As part of the National Library of Australia's oral history program, interviewers usually write summaries of the interviews following the recording session. Until recently, these were written and submitted to the Library as Microsoft Word documents, with tables showing start and end times for summary segments, a description of the segment, and keywords. To be used in the audio delivery system, these summaries would need to be converted to a structured time-coded format.

During the audio delivery project we developed a software tool for converting the existing Word document summaries to TEI XML documents. However, because of the unstructured nature of the Word documents and potential variations within a template, this conversion process had limited success. We also developed an alternative web-based tool for creating TEI XML summaries, which enabled validation of the content as it was entered.

Start time	Summary	Keywords	
00:00:00	Introduction		
00:02:50	Talks about her parents and childhood.	Sydney	
00:04:36			

Figure 4. Oral History Summary tool — editing time-coded summary for export as TEI XML document.

This process of creating time-coded summaries in XML through the web tool has now become part of standard practice for new interviews. The Library is also employing contractors to summarize existing interviews selected for online delivery that did not have summaries in electronic form.

Access rights and risks

Most of the content in the Library's sound recordings collection is commissioned by the Library and copyright is owned by the Library or shared between the Library and the interviewee. However, there are other rights issues that affect access to a recording. At the time of recording, the Library asks interviewees to speak openly, knowing that the Library will only give access to the recording as agreed by the interviewee. After the interviewer clarifies that the interviewee understands their rights with respect to allowing or restricting access and copying, the interviewee signs a form stating their instructions to the Library. This form shows whether the interviewee gives permission for access to the interview, copying

for research use and copying for public use (e.g. broadcast or quoting in publication). More recent rights agreement forms ask specifically whether the interviewee gives permission for access through Library websites.

RIGHTS AGREEMENT

MATERIAL COVERED BY THIS AGREEMENT

TRC Number: _____

Interviewee name: _____

Interviewer name: _____

Place of interview: _____

Date of interview: _____

5. May the Library permit unrestricted access to and use of the Material?

The Library usually allows members of the public to

- access material (= view it or makes notes about it or listen to it), and to
- use material (= copy it or publish it or use it in public ways)

Yes > Go to 10.

No > Go to next question

6. May the Library allow people to access and make notes about the Material on the Library's premises or while on loan in other libraries:

(a) Yes

(b) Yes, but only if the Library has received my specific permission on each occasion

(c) Yes, but only after the following date or event

(e.g. '2015' or 'after my death')

Figure 5. Extract from rights agreement form.

The access and copying conditions agreed to by the interviewee (or speaker or performers, if not an interviewee) are recorded in the catalogue record for the sound recording. Unfortunately the free-text fields in catalogue records allow many variations of the access statements, and the statements are not in a sufficiently structured form to allow automatic determination of whether access is permitted. This means that a significant amount of staff time is required to identify recordings that may be published on the web according to the agreement with the interviewee.

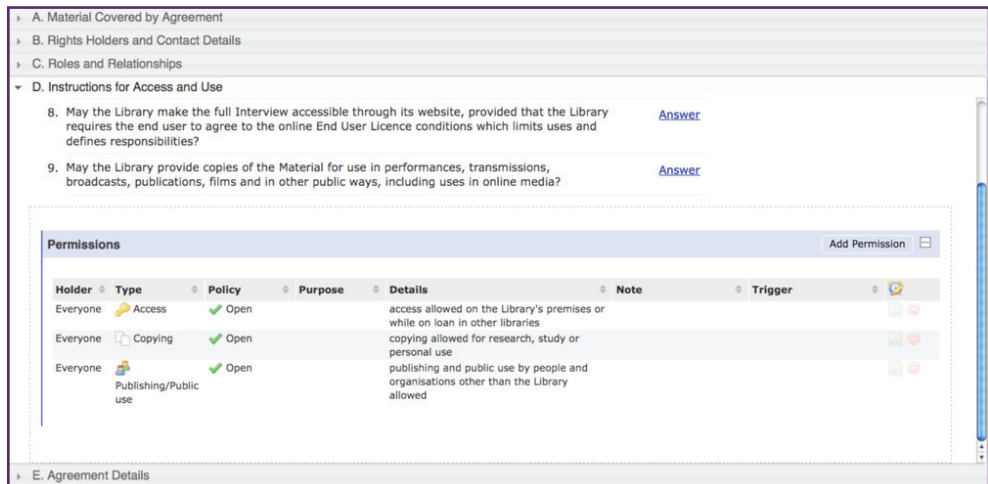
An additional problem with publishing previously unpublished sound recordings on the web is the risk of legal action for defamation. If an interviewee has made a statement that could be regarded as defamatory, the Library could be the subject of legal action as the publisher of the material. Even if the interviewee has agreed to make the content public, the Library may decide to restrict the material if there is a high risk of defamatory content.

The current approval process for publishing sound recordings through the audio delivery system involves manually assembling lists of open access recordings, then reviewing the list to make risk management decisions about publishing the content. Although the curatorial review process will continue to be necessary whenever we are releasing previously unpublished material, there is potential for improving efficiency of finding open access recordings.

Rights management

The Library had identified a requirement to build a rights management system to manage information about our agreements with people who have rights in special collections materials held by the Library. In some cases rights holders agree that material can be open for access, open for copying for research or study purposes and open for publishing or public use. However, a significant portion of the oral history and folklore collection has conditions on access or copying. For example, the interviewee may permit access only after their lifetime, or permit access but restrict copying and public use.

The rights management system developed in 2009¹⁰⁰ allows staff to enter agreements made with rights holders in a structured form, and link the agreement details to the rights holder and works they hold rights in. The permissions granted by rights holders are broken down into different types, so that library staff can clearly see whether access to a collection or work is open or restricted, and whether the Library is permitted to publish the material on websites.



A. Material Covered by Agreement

B. Rights Holders and Contact Details

C. Roles and Relationships

D. Instructions for Access and Use

8. May the Library make the full Interview accessible through its website, provided that the Library requires the end user to agree to the online End User Licence conditions which limits uses and defines responsibilities? [Answer](#)

9. May the Library provide copies of the Material for use in performances, transmissions, broadcasts, publications, films and in other public ways, including uses in online media? [Answer](#)

Permissions [Add Permission](#)

Holder	Type	Policy	Purpose	Details	Note	Trigger
Everyone	Access	Open		access allowed on the Library's premises or while on loan in other libraries		
Everyone	Copying	Open		copying allowed for research, study or personal use		
Everyone	Publishing/Public use	Open		publishing and public use by people and organisations other than the Library allowed		

E. Agreement Details

Figure 6. Entering a rights agreement in Sprightly (rights management system).

At this stage, the rights management system is used to record new agreements about rights holders as they are made. Another project is required to enter information from approximately 9000 existing agreement forms covering the oral history collection material. Once this information is recorded in the system, it will become possible to generate reports on all works matching a specific type of permission, such as “the Library is permitted to publish on its own websites”. When risk management decisions are made about releasing or restricting unpublished recordings, it is possible to record these decisions in the rights management system, so that the information can be used when reviewing access at a later date.

100 Rights management system information and open source code: <https://code.nla.gov.au/redmine/wiki/rms-go>

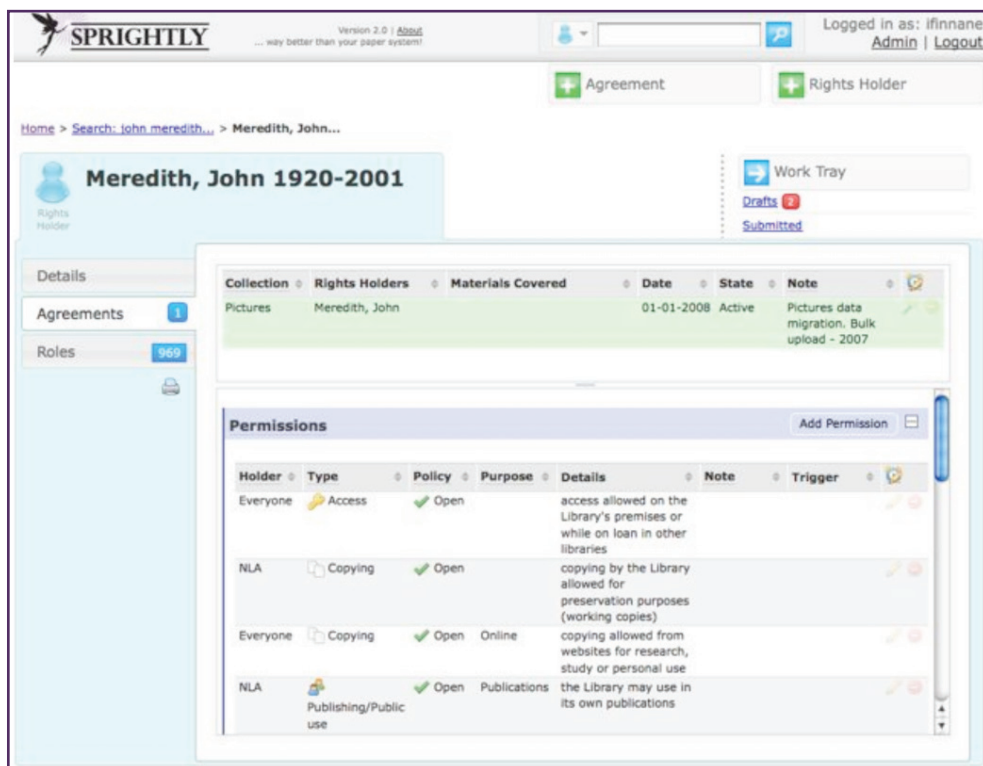


Figure 7. Viewing rights agreement details in Sprightly.

The future

Currently, MP3 derivative files for delivery are created as a routine process and batch uploaded to the Digital Collections Manager repository. Interviewers and other contractors create summaries through the online summary tool and TEI XML copies are uploaded to the repository. All oral history content is restricted by default and only accessible by Library staff, until oral history staff release the content for online delivery by changing the restriction level through the DCM. When the content is unrestricted, it is automatically available in the audio delivery system, and a link to the persistent identifier is added to the catalogue record so the recording is discoverable.

The decision to release content is made by the Curator of Oral History and Folklore after considering the legal risks described earlier. Staff prepare lists of content for potential delivery online by searching the DCM and library catalogue and checking access condition statements. This is a time consuming process and so far approximately 750 recordings have been approved for release.

In future it may be possible to use structured information in the rights management system to automate access to more digital content, for example digital images with clearly defined permissions. The requirement to make decisions about releasing previously unpublished content means that access to oral history recordings will not be automated in this way. However, reports in the rights management system will clearly indicate which of the thousands of digital sound recordings may be published online according to the interviewees' agreements with the Library. When combined with the ability to record curatorial decisions about access in the system, these reports will facilitate the process of releasing much more content for immediate online access through the audio delivery system.