Developing a useable digital collection
This report on collections and access is designed to assist historical societies in three key areas associated with the development of a useable digital collection: (1) cataloguing, (2) creating a digital collection, (3) access and discoverability.

The report discusses the stages involved in developing a collection – from paper based catalogues to fully discoverable digital records and offers advice on appropriate software. The varied types of digital systems used for small and community collections are summarised and the importance of standards and compatibility is highlighted. A glossary of terminology and definitions is included.¹

¹ Managing a collection is much broader than the scope of the report. Bringing items into the collection: acquisition, accession, the transfer of ownership, and the ongoing management of rights such as copyright and IP are important aspects dealt with elsewhere. Utilising and activating the collection, making it available by way of interpretation for visitor engagement is also outside the extent of the report.
Catalogues
Historical Societies appreciate the value of cataloguing their collections, although a small number are not catalogued in any way. Most, having started with paper-based records have now migrated to some form of digital records.

Catalogues may be:
- Paper based
- In a basic spreadsheet format (e.g. Excel, File Maker Pro)
- Digital but not online
- In an older or outdated database
- Online but not easily discoverable via search engines
- In a format that uses accepted national and international standards (e.g. Dublin Core standards etc).

Creating a Digital Collection
Many historical societies have been working hard to get information about the collection into some sort of database. Using this database to create a relational and contextualized digital collection is the next stage.

Creating digital collections may include:
- A variety of collection types: photographs; manuscripts (documents, letters, diaries etc; audio-visual materials; agricultural machinery; moveable objects; maps; books etc
- A singular collection or a number of collections
- Objects and documents converted from analogue to digital (e.g. scanned)
- Born digital items
- Descriptors, tags
- Thematic linkages

Access and Discoverability
At times access to digital records remains in-house relying on limited access to a specific computer. Making collections discoverable via online search engines (such as Google) and aggregators (such as Trove) is the next challenge.

Digital Records may be accessed and discovered:
- In-house only
- Available only to Society members
- Accessible via password
- Accessible to the general public via search engines e.g. Google
- In a format that is harvestable by national aggregators - (e.g. Trove, Digital NZ)
- Use of cloud technology ensures that any authorised person can access the collection from any device anywhere.

Challenges and Opportunities
Societies are facing a range of challenges and opportunities in developing and making their collections known to new audiences in a technologically complex, media saturated environment. It is important that societies embrace the potential of digital technologies to open up community collections, many of which are in danger of being lost, for safekeeping, research and interpretation. Some of the specific challenges are outlined below:
Technical
Low-level digital knowledge in general, coupled with insufficient awareness of the potential of digital technology to enable public and community participation.

A reliance on old and outmoded systems

In some instances inability to access appropriate technologies

Organisational
Overwhelm and lack of priority areas – trying to do too much with too few resources

Range of collection types spread across different systems

No Collections procedures (accessions register; cataloguing system etc)

Providing access to the collection for members only

Cost & Time
A small number of volunteers to undertake the time-consuming task of data entry limiting the quantity of collection materials currently catalogued and digitised.

The cost of regularly maintaining and updating collection systems is also hindering the development of these collections.

Collections Knowledge
Knowing how to make collections available, accessible and discoverable is difficult for many historical societies. Survey indicators are that the majority of digital collections are not viewable on society websites or are discoverable by Trove.²

The skills required to ensure that object descriptions are accurate and vocabulary is consistent are not always available.

Knowledge and application of collection standards for metadata ensures that collections may be harvestable by national aggregators such as Trove.

Not being aware of the availability of training and support.

Concerns about theft, loss of IP and related income streams is also holding organisations back from making collections relevant and available.

Relevance of Historical Society Collections
Australian historical societies collect and manage several hundred collections with millions of items of diverse material, including paper-based documents, images and objects. The digitisation of these records ensures their long-term preservation. Not only does it reduce the need to handle fragile and vulnerable materials, it provides a digital record should originals be lost through physical deterioration or disasters.

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² The FAHS survey Stage 2: Collections management including digitisation and accessibility (2017) provides indicative data from historical societies on how they are managing collections. Survey data includes digitisation; cataloguing; collection policies; access, and standards.
The several hundred collections managed by historical societies form an important part of what is known as the Distributed National Collection of the Australian GLAM sector. GLAM is the acronym for galleries, libraries, archives and museums. The term also refers to any other organisations that care for collections of any kind, including historical societies, Indigenous keeping places and science research collections. Australian historical societies’ collections are not only significant for the localities in which they are based, their information can contribute understandings about people, events and places that are of value to researchers worldwide.

Digital access to collections has transformed the way people discover and engage with historical records. Records that are not available or described online may be invisible to a generation, which relies exclusively on online searches for the discovery of resources. The 2017 Collections survey indicates that the vast majority of Historical Society collections are not accessible online. Therefore it is important that these collections, like those of other institutions, are not only digitised but also made accessible so that they can be made known to and used by people everywhere. Taking sensitivities into account and understanding that some restrictions will apply it is in the interests of all those involved in historical research that this is done.

The contribution of historical society work and collections has been recognised by the GLAM Peak Body, of which the FAHS is part, as it seeks to facilitate the digitisation of Australia’s cultural heritage collections. Advocating for the relevance of these community collections and ensuring that their value is recognised will continue to be important.

Representing many hours of detailed work and historical interpretation, much of the research collated by historical societies is located in older databases. While the material has currency, transferring older databases into new digital collection management systems that already have partner agreements with Trove ensures that these collections are directly discoverable. As Trove (or an equivalent service) will remain the key to making this research widely accessible and searchable any future collections systems needs to be compatible with these aggregated databases.

Globally the GLAM sector is looking at making more of its materials, digitally accessible, free and available at high resolution. We have also seen the rise in Creative Commons and similar licensing agreements (Creative Commons provides copyright licenses to facilitate sharing and reuse of creative content). All of these developments offer invaluable access for the end user and open up new channels of participation with and for Historical Societies.

**Collaborative models**

Collaborative models have assisted some societies and in many cases enhanced the work that they can perform. Programs can be developed that work regionally and in partnership with local councils, libraries, museums or other cognate organisations to help preserve, advertise and potentially manage the collection. In some instances historical societies have retained ownership of the collections and developed a productive and reciprocal memorandum of understanding. Others have transferred ownership to the partner organisation. Others prefer to retain full control as developing collections and making them publicly available is central to their mission. It should be noted that transfer of ownership could significantly undermine a society’s
sense of purpose and functions, so handing over a collection should only follow after serious examination of the implications.

Examples of some of these agreements are the Hawkesbury Historical Society, History Redcliffe and Sustainable Collections Projects in the Central West NSW, Malvern Historical Society and the Prahran Historical And Arts Society.

The Hawkesbury Historical Society negotiated with the council for their collection to form the basis of the Hawkesbury museum. In this arrangement the society has retained ownership of the collection while museum staff administer it. The agreement facilitates members to discuss projects with the professional staff at the museum and to contribute their expertise in historical research. (https://www.history.org.au/Documents/Newsletters/FAHSNewsletter41-May2016.pdf)

History Redcliffe transferred the ownership of the collection to Redcliffe City Council for display in the Redcliffe Museum. An active partnership with the council has ensured the survival of the collection and provides room and space for society activities. In turn society members volunteer at the museum and contribute to exhibitions and visitor services. (http://www.history.org.au/E-Bulletin_165.html).

The Sustainable Collections Program assisted historical societies and community museums in the Central West, NSW with the documentation, assessment and interpretation of collections. Central to the project is a strengthened relationship with councils and a greater community awareness of the significance of the collections.

In a few cases, the collection of more than one society in a local area has been transferred to the Local Government Authority. As management of collections is often central to a society's purpose and mission, the loss of ongoing collections can challenge a society to redefine its objectives, goals, and activities.

One such example is where the historical assets of the Malvern Historical Society and the Prahran Historical And Arts Society, were combined with the collections of Stonnington Council (and its predecessors the Cities of Malvern and Prahran) and the Stonnington Library and Information Service to form the Stonnington Local History Collection. The combined collections are the property and responsibility of the City of Stonnington and under the management of the Stonnington Local History Service. The Council has demonstrated to the Community its long-term commitment to the Local History Collection through the provision of secure premises, permanent staff and ongoing funding. Such arrangement has been welcomed by the Malvern Historical Society who collaborates on local history- based programs and remains an active community group. However it should be noted that the handover of the collections has not been popular with all members, and likely contributed to the abeyance of the Prahran Historical And Arts Society.

**Comparison of Collection Management Systems**
Research indicates that historical societies in Australia have invested in four main digital cataloguing and collection management systems: Maxus DB/Textworks; Collections MOSAiC; Victorian Collections, and more recently eHive.
None of these systems is perfect and there is no one size fits all. Societies are operating from different starting bases - from those just starting the process of creating digital records to those with large, sophisticated collections online. In many instances, societies have invested heavily in collection management software that they are happy with and feel well supported. Others are motivated to migrate data across to other systems to ensure compatibility with the latest cloud based technologies and national aggregators. For a significant proportion, pre-existing commitments have been made and societies feel it is too challenging to change to a new system.

Each digital collection management system should be reviewed for a best-fit system for collection type, range and scale. Different solutions are required for cataloguing archival records or showcasing a few items. The requirements of a small library in an historical society will be different from a society museum with an exhibition focus. There will be particular materials or documents and intentions for the collection that would indicate one system over another.

**Summary of general types of systems**

**Web based systems**

Web based systems have become increasingly adopted by historical societies. They enable material to be entered from any computer and do not rely on a single/multiple use licence agreements. Upgrades and maintenance are done automatically. Web based systems have proved beneficial to those that have limited access to in-house computers enabling volunteers to work remotely. Examples are eHive and Victorian Collections.

eHive is a cloud based system developed by Vernon, for cataloguing collections and as a publishing platform. eHive manages a range of content including archival documents, manuscripts, objects and offer broad range use for many types of society and small-scale collecting organisation.

Entry level to eHive is free and can be used for up to 5,000 records and up to 200 images. More object files and images are priced according to data requirements. eHive is designed to work with Wordpres, which is useful for organisations that are starting out to set up a simple website and use the plug-in to present significant collection items.

The Royal Historical Society of Victoria has adopted eHive and are in the process of migrating all object files across library, archive and image collections [https://ehive.com/collections/6420/royal-historical-society-of-victoria-rhsiv](https://ehive.com/collections/6420/royal-historical-society-of-victoria-rhsiv)

eHive allows users to connect and collaborate with one another via Communities by contributing object records based on a common theme. This enables online collaborative projects between societies and other communities of interest.

Victorian Collections is developed by Museum Victoria in partnership with Museums Australia (Victoria). It is a free web-based collections management system for use by collecting organisations throughout Victoria. Victorian Collections aggregates material and curates stories around shared items gathered by these different organisations.
Victorian Collections is orientated around objects rather than books and manuscripts. It is therefore of limited use for historical societies that manage archive and document based collections.

**Licensing model per computer or server based network**

Many historical societies have invested in collection management systems that operate on a licensing model or require a server-based network environment. Often the database runs on a single licensed computer requiring in-house access to that computer for cataloguing. A step-by-step linear process of cataloguing the full collection is followed by online publication. As data can be entered offline this has proved useful for organisations with limited internet access or low bandwidth. After the initial set-up costs, some organisations have found it challenging to find the budget to maintain software updates and maintenance contracts resulting in some societies using non-current versions.

DB/Textworks combines a database and text retrieval software to build up ‘textbases’ (text / multi-media databases) to manage diverse types of information including bibliographic catalogs, documents, images, multimedia, etc. These DB/TextWorks textbases can be made web accessible via DB/Text WebPublisher PRO.

Collections MOSAiC was created in the 1990s for museum collections by Information Services & Technology in conjunction with Museums Australia (WA). It supports of a range of materials including objects, photographs, documents, artworks, oral histories and more. Data is entered in to the catalogue on a licenced computer and internet access to the catalogue can also be established. Browsable web pages can be generated based on the data. Both Collections MOSAiC and DB/Textworks run on Windows Operating Systems.

**Open source systems**

Open source collection management systems have been used by historical societies to a lesser extent. Collective Access is a free open source platform designed to handle large, heterogenous collections that have complex cataloguing requirements. It requires a server to run the data from and some technology knowledge for the setup.

Omeka is another open source platform. It works on Linux, Apache, MySQL5, PHP5. If the society does not have a server, the society can use Omeka.net to host the data. Omeka is orientated towards documents, catalogs and photographs. As the Dublin Core type controlled vocabulary does not include physical object it is not suitable for object management.

**Compliance and Compatibility**

Most important is for any collection management system to be compliant with known metadata standards e.g. Dublin Core so as to be compatible with aggregated databases and outreach services like Trove. An inclusion in Trove provides the gateway to global accessibility and discoverability and networks of wider relationships. Disconcertingly the FAHS Collections survey indicates that very few Historical Societies use collections standards for metadata.

The GLAM Peak Digital Access to Collections Project has developed a toolkit to help historical societies in undertaking a digitization processes. The toolkit outlines the
varied stages in managing and sharing your data and outlines a simple metadata system that is compliant with known metadata standards.

The GLAM Peak Digital Access to Collections, Stage One Project Report notes that Victorian Collections and eHive are both automatically harvestable by Trove so that Trove can collect relevant information as records are updated and added to the online collection.

There may be concern about adopting a propriety system such as eHive as collections are exposed to business imperatives. However, eHive has been developed by Vernon, who is heavily invested in high-end collection management systems for the GLAM sector. Being part of a larger system connected internationally provides some insurance for on-going support, R&D and response to technological advances.

On the other hand, it is also worth noting that government-based systems are also subject to the uncertainties or cessation of ongoing support funding, such as the Collections Australia Network (CAN), CAN's predecessor, Australian Museums Online (AMOL) and Vicnet.

Some concerns raised by societies

Concern
The potential loss and theft of images on their website and shared digital platforms.

Response
- Societies can develop a plan for protecting and controlling collections while enhancing access to them online.
- Low resolution or watermarked images can be made freely available on the society’s web site. Higher resolution images may be costed. Another option is to use a high-resolution version (with watermark). Kurrajong-Comleroy Historical Society does this: https://www.kurrajonghistory.org.au/images.php

Concern
Lack of engagement with the society’s research and collection materials.

Response
- Any collection records that are not online can be publicised through other means. It is useful to think about outreach to new potential users rather than thinking that people will find you.
- Demonstrating what you have – for objects, photographs and certain documents online visuals is important.
- Demonstrating what you have can develop interest from a broader online audience. From this can develop other forms of engagement e.g.. crowd-funding, sharing of media, blogs etc.
- Greater discoverability creates a dynamic, participatory cultural ethos.
Digital Presence could reduce the incentive to visit the society collection.

Response
- It is worth considering the value of a variety of modes of participation (including physical and virtual visitors) within your strategic plan
- Online impact can result in attracting more people to your organisation
- A strong digital presence is important to attract media savvy visitors

Concern
The digitisation process is too onerous e.g. large backlog of items to be digitised.

Response
- Development of priority areas of the collection. This may be linked to a Significance Assessment of the collection/s.
- Strategic and incremental use of collections catalogue can be used for showcasing some of the most significant items in the collection. This could be presentation of the 10 most significant objects. An example is a pilot site set up for the Thredbo Historical Society (eHive).
  https://ehive.com/collections/6863/thredbo-historical-society
- FlickR, Instagram and other online ways of presenting what you have in your collection can be explored.

Concern
Being inundated with inquiries due to increased visibility.

Response
- Integrate web, social media, blogs etc so that inquiries are answered online to increase community participation and crowd sourced media
- Recruit people to support increased interest

General Recommendations
Any specific advice will need to be made on a case-by-case basis taking into account society capacity and pre-existing collections expertise.

To summarise some of the general recommendations made in the report:

Online help is available through the GLAM Peak Digital Access to Collections Project. A toolkit takes you through the process of creating a discoverable collection step-by-step – from scratch to enhancing your society’s profile.

The FAHS runs a History Clinic providing advice on all aspects of running an Historical Society. Contact Dr Bernadette Flynn fahsflynn@gmail.com with any questions about Collections and Access or to book in for a one on one session.
Ensure your database is compliant with international standards for materials description and data harvesting (to sites such as Trove).

Ensure your selected database deals with the diversity of materials collection and/or is suited to the nature of the collection.

Build up a support network through varied ways of presenting the collection

Unlock the potential of the collection through increased digital presence, outreach and collaboration

Create a Succession Plan for the transfer of the collection should your society cease to operate. The FAHS has developed a Succession Planning Guide and Workbook available on the FAHS website at http://www.history.org.au/SuccessionPlanning.html

Glossary of terms and definitions

**Aggregator**
Aggregator refers to a website or computer software that aggregates a specific type of information from multiple online sources

**Digital NZ**
DigitalNZ is a service run by the National Library of New Zealand and makes New Zealand digital content easier to find, share and use by bringing together the descriptive information (metadata) about the collections of over 150 organisations into one place.

**Dublin Core Metadata**
Dublin Core metadata is a metadata standard for searching and indexing Web-based metadata, regardless of whether the corresponding resource is an electronic document or a ‘real’ physical object. Internationally recognised as the set of core metadata elements used to promote data interchange and interoperability across domains it is one of the best known metadata standards.

**Born-Digital**
The term born-digital refers to materials that originate in a digital form. This is in contrast to digital reformatting, through which analog materials become digital.

**Controlled Vocabulary**
A controlled vocabulary is an organised arrangement of words and phrases used to index content and/or to retrieve content through browsing or searching. It typically includes preferred and variant terms and has a defined scope or describes a specific domain.

The purpose of controlled vocabularies is to promote consistency in preferred terms and the assignment of the same terms to similar content, while capturing the richness of variant terms.

**Creative Commons**
Creative Commons licences provide a standardised way to give the public permission to share and use your creative work on conditions of your choice. CC
licenses let you easily change your copyright terms from the default of ‘all rights reserved’ to ‘some rights reserved.’

Releasing material under a CC licence makes it clear to users what they can or cannot do with the material. There are six standardised CC licences, which each allows material to be used in a different way.

**GLAM**
GLAM is an acronym for Galleries, Libraries, Archives and Museums and refers to cultural institutions that have access to knowledge as their mission. It also refers to any other organisations that care for collections of any kind, including historical societies, Indigenous keeping places and science research collections. Its use highlights the many things that connect these different kinds of organisations together.

**GLAM Peak**
The GLAM Peak Bodies is an umbrella committee organised by the peak representative bodies of galleries, libraries, archives, museums, historical societies and other research collections sectors in Australia.

**Harvester**
A harvester is operated by a service provider as a means of collecting metadata from repositories. An example is the NLA harvester. A repository is a network accessible server managed by a data provider e.g. Victorian Collections or eHive to expose metadata to harvesters.

**Interoperability**
Interoperability is the ability of different information technology systems and software applications to communicate, exchange data, and use the information that has been exchanged. Interoperability defines how and how easily content and services are able to be accessed and utilised via aggregation platforms and sharing services.

**IP**
IP is intellectual property - the property of creative practice or proprietary knowledge that is the result of creativity. This can be an invention, trademark, design, brand or even the application of an idea.

**Metadata**
The word ‘metadata’ means ‘data about data’. Metadata articulates a context for objects of interest – ‘resources’ such as MP3 files, library books, or satellite images - in the form of ‘resource descriptions’. As a tradition, resource description dates back to the earliest archives and library catalogs. The modern ‘metadata’ field that gave rise to Dublin Core and other recent standards emerged with the Web revolution of the mid-1990s.

**Metadata Standard**
Metadata standards serve a particular purpose in data processing and machine-to-machine interoperability. Examples of metadata standards are Dublin Core Metadata Element Set; Web Ontology Language (OWL); PREMIS: Data Dictionary for Metadata Preservation.
OAI
Open Archives Initiative (OAI) Metadata Harvesting Protocol
The National Library uses the Metadata Harvesting Protocol to support resource discovery of digital Australiana. Metadata is gathered from a wide range of information managers according to the OAI protocol.

Open Source
Open source software is software with source code that anyone can inspect, modify, and enhance. Free and open source software is software developed by informal collaborative networks of programmers. The source code is licensed free of charge, encouraging modifications and improvements. This is in contrast to proprietary software, where the software is under restrictive copyright and the source code is usually hidden from the users.

Server
A network server is a computer system, which is used as the central repository of data and various programs that are shared by users in a network. The server is designed to process requests and deliver data to other (client) computers over a local network or the internet.

Trove
Trove is an Australian online library database aggregator; a free faceted-search engine hosted by the National Library of Australia, in partnership with content providers including members of the National & State Libraries Australasia.

Trove is indexed by all major search engines and is able to locate resources about Australia and Australians, which reaches many locations otherwise unavailable to external search engines.
Links to Collection Management Systems and Toolkits in the report

Collection Access  
http://www.collectiveaccess.org/

Collections MOSAiC  

DB Textworks  
https://www.maxus.net.au/index.php/products/inmagic-db-text/db-text-works

eHive  
https://ehive.com/

Omeka  
https://omeka.org/

Victorian Collections  
https://mavic.asn.au/services/victorian-collections

Trove  

Trove Roadshow Presentation  

Trove Support  

GLAM Peak Digital Access to Collections Toolkit  

FAHS Succession Planning Guide and Workbook  
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