‘DIY’ DIGITAL PRESERVATION FOR VIDEO
IDENTIFY – SELECTION – ORGANISE - STORAGE

TNA 'BRIDGING THE DIGITAL GAP' SCHEME
AGENDA FOR TODAY

Session 1: Hello + Housekeeping
Session 2: Introduction to General Digital Preservation
Session 3: Identify + Selection
Session 4: Organise + Storage
WHO ARE WE & WHY ARE WE DOING THIS?

• We are the four London Cohorts of the ‘BRIDGING the DIGITAL GAP’ traineeship scheme.

• Collaborating since March 2020 on ‘DIY’ Digital Preservation workshop series, based on a different medium (software, video, audio & web-archiving).

• Sponsored by the UK National Archives and funded by the National Lottery Heritage Fund.

• Supported by: TfL, LMA, Ual, UoW.

• Spread awareness about how easy it is to preserve and manage your own personal digital files.

Hoping to inspire you to take action!
WHAT IS DIGITAL PRESERVATION?

"IT IS ABOUT A SET OF ACTIVITIES NEEDED TO ENSURE THAT DIGITAL CONTENT CAN BE ACCESSSED FOR AS LONG AS NEEDED."

it’s an on-going process and not a one-off!

it may mean perpetuity (e.g. lasting forever, no end).

taken from DPC
WHAT IS A BITSTREAM?

SWITCH TO MICROSOFT WHITEBOARD
LET’S TALK ABOUT DIGITAL INFORMATION FIRST!

• Digital information:
  ✓ drives our economy.
  ✓ helps develop our cultural experiences.
  ✓ connects our communities together.

• Born-digital material such as text, image & video are items that are created and managed in digital form.
THE MAIN QUESTION TO ASK HERE IS:

“But what if all or part of this information disappears?”

I have learnt during my traineeship so far:

• Our digital assets/collections are just as valuable as traditional information (e.g. maps, books, etc).

By depending on technology, it can put our digital items at risk too!
THE CHALLENGE IS:

“What are the minimal requirements for responsible management of born-digital video?”

THIS IS WHERE DIGITAL PRESERVATION ENTERS !!!
1. **Identify** what video types you want to save (e.g. avi, mp4, mkv, flv, xvid format).
   - Where are they saved? On your computer PC/Mac?
   - Is it stored on your Cloud platform online?
   - Is it scattered around in several folders or external hard drive/flash drives?
   - It may not be practical to save every single file.

2. **Decide or select** on what is most important to you to save.
   - This will help you reduce the amount of files that you have accumulated.
GET THE METADATA

- Metadata is, essentially, ‘data about data’. It is the information stored to describe aspects of a file, and it’s content.
  - E.g. technical specifications, resolutions, bit-rates.

USEFUL TOOLS!

❖ Try Tubekit (tubekit.org): It’s a YouTube crawler that allows you to extract YouTube video data (e.g. author, keywords, genre, no. of views, ratings, comments, etc).
❖ Try MediaInfo (mediaarea.net/en/MediaInfo): displays metadata embedded in video & audio files.
❖ Try VLC player (videolan.org): Free & open source multimedia player.
QUICK POLL

WHICH OF THE FOLLOWING VIDEO FORMATS DO YOU WORK WITH MOSTLY?
SESSION 4

STRATEGY: (TAKEN FROM LIBRARY OF CONGRESS)

• 3. ORGANISE the content.
  • Gather everything into one place.
  • Create one main archive folder with an understandable name.
  • Then create sub-folders inside the master folder and name them simple descriptive titles. It may help to include name and date of subject.

• RENAMING FILES: follow file-naming conventions.

azu001_2019_05_15_valletta.mp4

unique identifier  date recorded  location

N.B: Avoid using “illegal” characters @#$%&*<>?/\-
SESSION 4

• Create an “INFORMATION PACKAGE”
  • Basically, group related videos or even text files in a folder.
  • This helps maintain the original order & context.

• Also prevents videos from becoming disassociated with each other.

• REMEMBER: There is no one correct way to structure the organisation of YOUR video files.

• Use a structure that works for YOU!
4. STORAGE

- Storing isn’t just about finding a device or service to hold your videos.
- It requires a SET OF ACTIONS to ensure your media stays intact, secure, and accessible.

• SIMPLE STRATEGIES for keeping your videos safe:
  1. Making copies.
  2. Checking files.
  3. Controlling access.
  4. Refreshing your devices.
1. MAKING COPIES:

- LOCKSS (Lots of Copies Keep Stuff Safe).
- 3-2-1 back-up rule used by pros!
  - It simply states that
    - ✓ 3 copies of your data.
    - ✓ 2 different media.
    - ✓ 1 copy off-site.

USEFUL BACKUP TOOLS!

- Time Machine (Mac)
- Backup & Restore (Win-PC)
- File History (Win-PC)
- Teracopy [http://codesector.com/teracopy](http://codesector.com/teracopy)
- Bacula [https://www.bacula.org/](https://www.bacula.org/)
2. CHECKING FILES

• ensure File Fixity – perform FIXITY checks.

• means computing & comparing a file’s HASH VALUE (aka checksum) with a previously computed hash value.

• If the file is altered in any way, it’s hash value will be different.

USEFUL TOOL

○ https://www.weareavp.com/products/fixity

○ DROID

3. CONTROL ACCESS

• Try to control who has physical & electronic access to your storage devices.

• Only give access to people who needs access.

• Store video files on a volume separate from your other files.

○ Robert McMilen

https://youtu.be/Gv3Jkib51i0

4. REFRESHING YOUR STORAGE MEDIA

• Many different types of storage media (use them in different combination).

• But, how do you decide?

I. What is the level of support you require?

II. What is the size of your video collection?

III. Is it easy to refresh your video collection?
TYPICAL HARDWARE / STORAGE MEDIA

Portable hard drive

Ideal for:
- Collections no larger than 2-3 TB.
- Collections that only need to be accessed by one computer/user at a time.

PROS
- Relatively low cost (usually £70 - £120).
- Portable.

CONS
- Drives (especially Firewire) fail often.
- Platform-dependent.

Cloud storage

Ideal for:
- Small collections.
- Collections that need to be accessed by people in different locations.

PROS
- Collections can be shared worldwide.
- Storage is maintained by 3rd party. Most have very good infrastructure. (e.g. amazon aws, vimeo, dropbox, google drive)

CONS
- Plenty of bandwidth is needed to upload & download files.
- On-going subscription fees.
- Service can terminate at any time, sometimes without notice!
WHICH FORMAT IS BEST?

• Unfortunately, a single format does not exist that will meet every need related to digital video.

• Instead, let’s ask ourselves a few questions that can be used as a guideline (taken from Digital Preservation Office at Uni. Of Michigan):

  1. Is this format currently in common use and well supported by playback software?

  2. Is this format a proprietary format? Does it have open documentation?

  3. What are the current preservation standards?

    • Library of Congress’s Sustainability of Digital Formats.
    
COMMON FILE FORMATS

- mpeg-4 (.mp4) and mpeg-2
- avi (Microsoft)
- mov (Quicktime)
- wmv (Microsoft)
- mkv (Matroska) *future?*

At this time, **MPEG-2** and **MPEG-4** stand out as the best formats for long-term preservation.

- They are open format.
- Both used for commercial broadcast.
- Both used for government entities (Library of Congress).
SESSION 4

“PERSONAL DIGITAL PRESERVATION PLAN”

TEMPLATE

SWITCH TO TEMPLATE
IN SUMMARY:

1. Identify what video types you want to save.
2. Decide or select on what is most important to you to save.
3. Organise your content.
4. Save copies in different places.
USEFUL RESOURCES

• The National Archives (TNA)
  https://www.nationalarchives.gov.uk/information-management/manage-information/preserving-digital-records/guidance/

• Digital Preservation Coalition (DPC)
  https://www.dpconline.org/handbook
  http://digitalpreservation.gov/personalarchiving/video.html

• Library of Congress (LOC)
  https://www.loc.gov/preservation/digital/

• WITNESS
  https://archiving.witness.org/archive-guide/

• Borthwick Institute
USEFUL ONLINE COURSES

• **Novice to Know-How**
  
  [https://www.dpconline.org/digipres/train-your-staff/n2kh-online-training](https://www.dpconline.org/digipres/train-your-staff/n2kh-online-training)

• **An introduction to identification of archive film & video**
  
  [https://www.eventbrite.co.uk/e/an-introduction-to-identification-of-archive-film-video-online-training-tickets-115180548120](https://www.eventbrite.co.uk/e/an-introduction-to-identification-of-archive-film-video-online-training-tickets-115180548120)