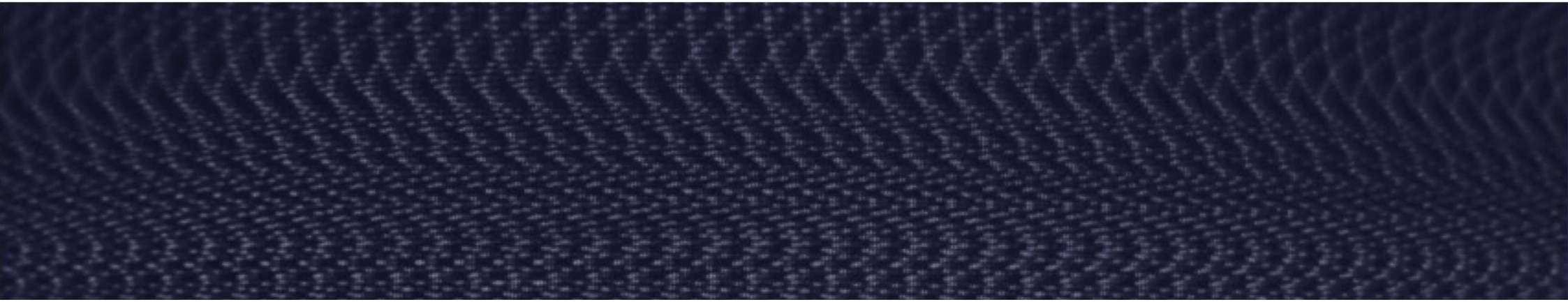
KNOWLEDGE OBSOLESCENCE IN AUDIOVISUAL PRESERVATION

NTTW4 BUDAPEST
December 6th, 2019

ISSUE

As those with the technical knowledge to repair and maintain analog video playback equipment aged out of the professional field, the ability to steward the equipment for preserving analog video to standards becomes an endangered skill set at risk of being lost.



MAGNETIC MEDIA

OBSOLETE!!! :(

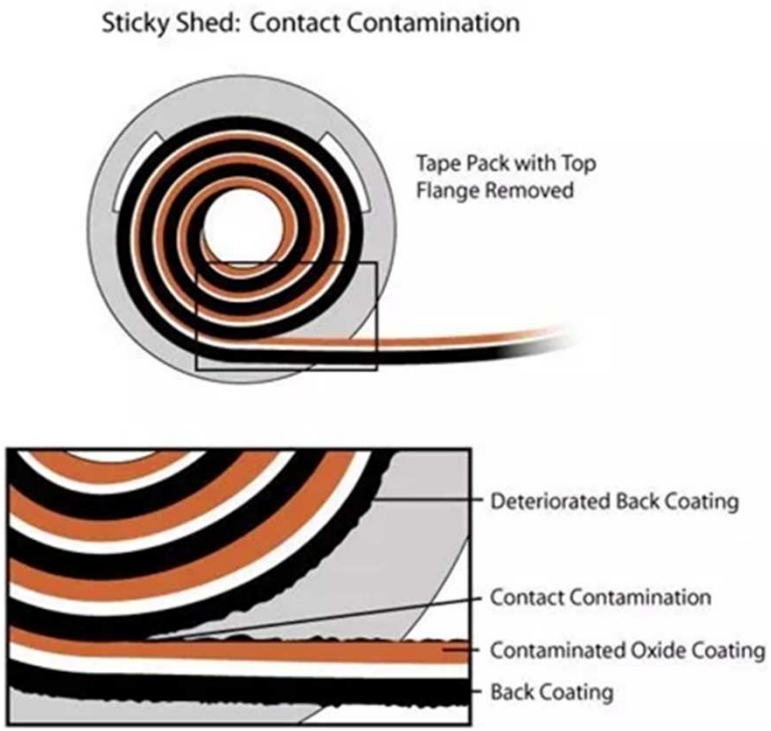

VHS
VHS C
Hi 8
Betamax
SONY
U-matic
BETACAM SP
MICRO MV


VIDEO TRANSITIONS
SUB MASTER
DROP FRAME
Edited Master
Dolby


Scotch
VIDEO TAPE
3M

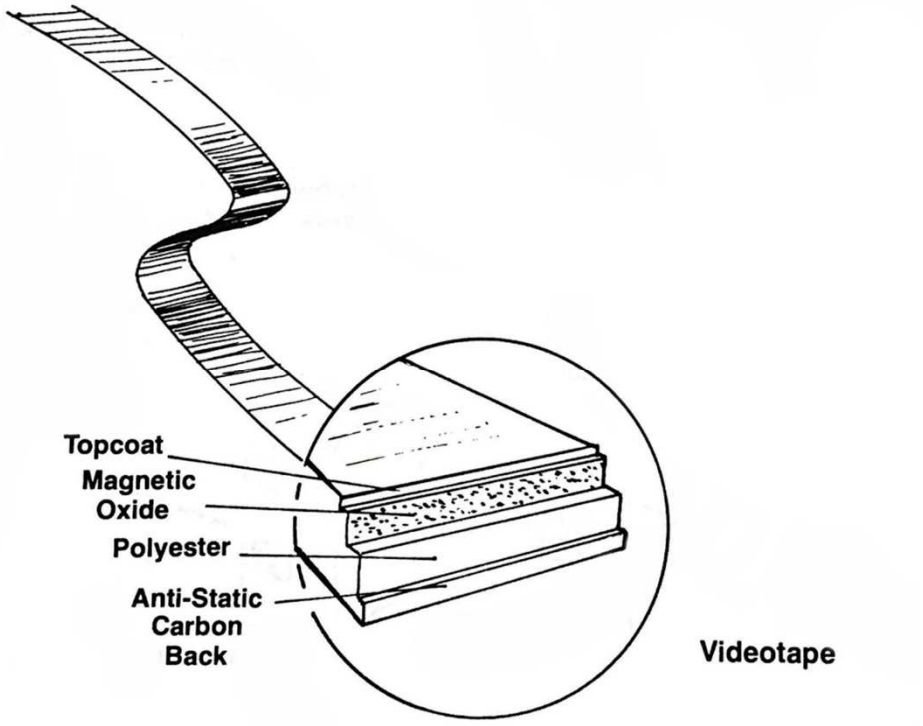

Scotch
by 3M
60
minutes or less
Place spool on VTR before removing collar
AVOID TAPE DAMAGE

MAGNETIC MEDIA

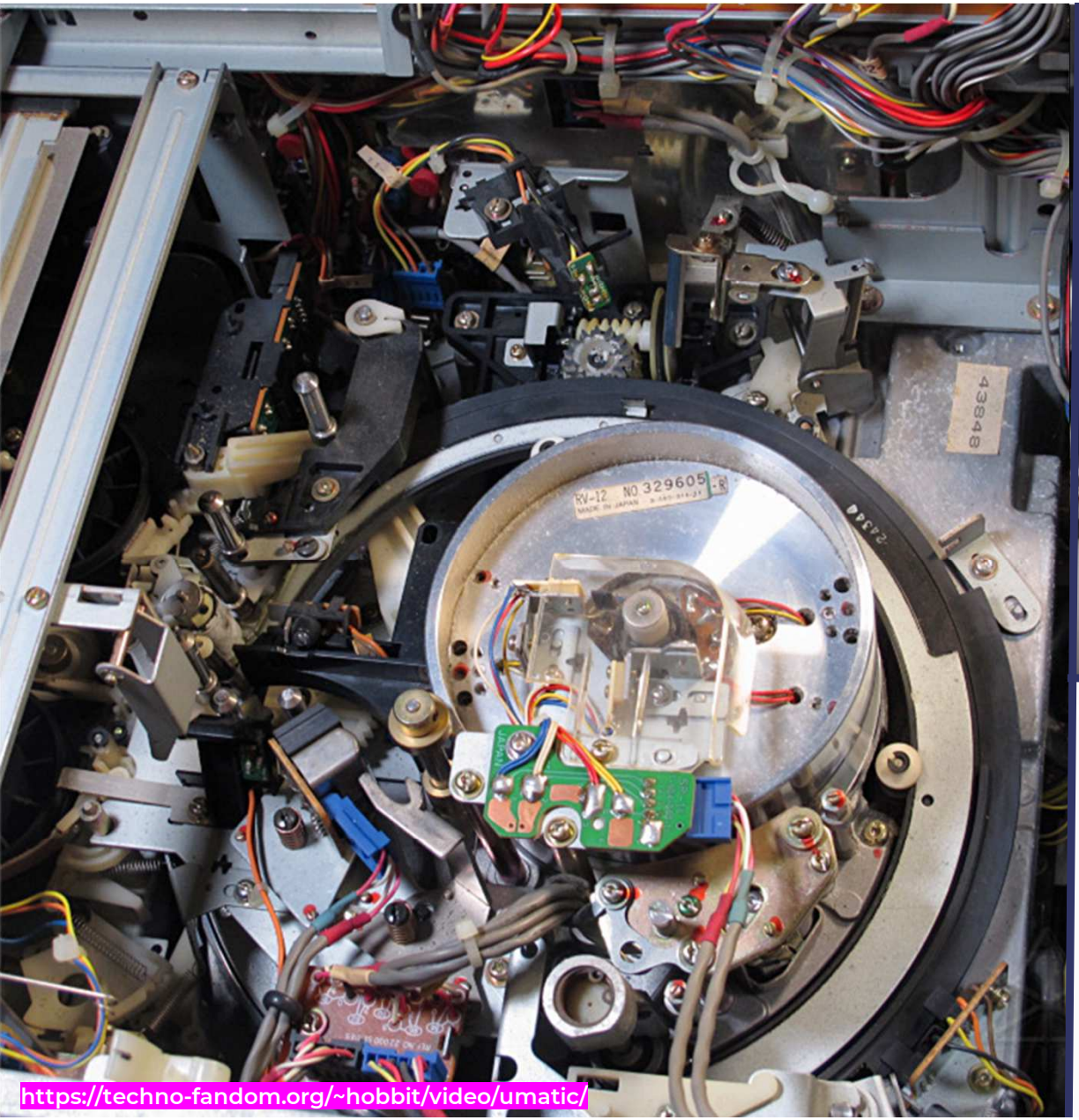


LEFT: https://vhsconversion.wordpress.com/2012/03/13/sticky-shed-syndrome/
RIGHT: https://www.canada.ca/en/conservation-institute/services/preventive-conservation/guidelines-collections.html

FUGITIVE MEDIUM!



LEFT: Charles Bensinger, *The Video Guide,* Santa Barbara: Video-Info Publications, 1979: 71.
RIGHT: https://www.canada.ca/en/conservation-institute/services/preventive-conservation/guidelines-collections.html



https://techno-fandom.org/~hobbit/video/umatic/

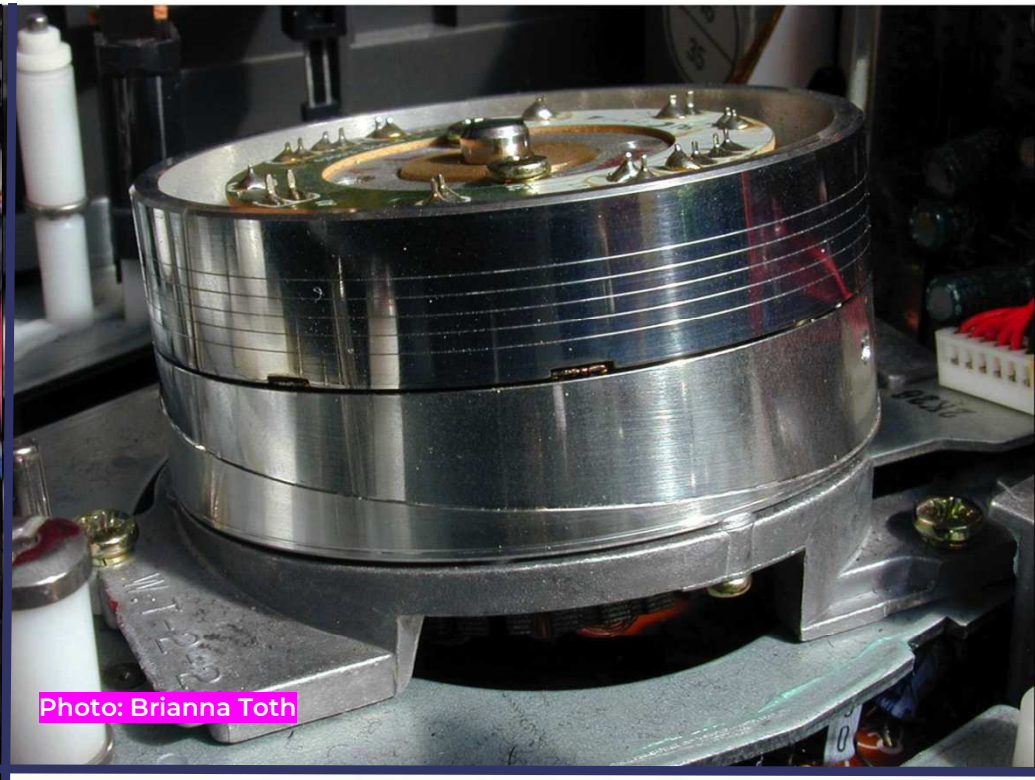
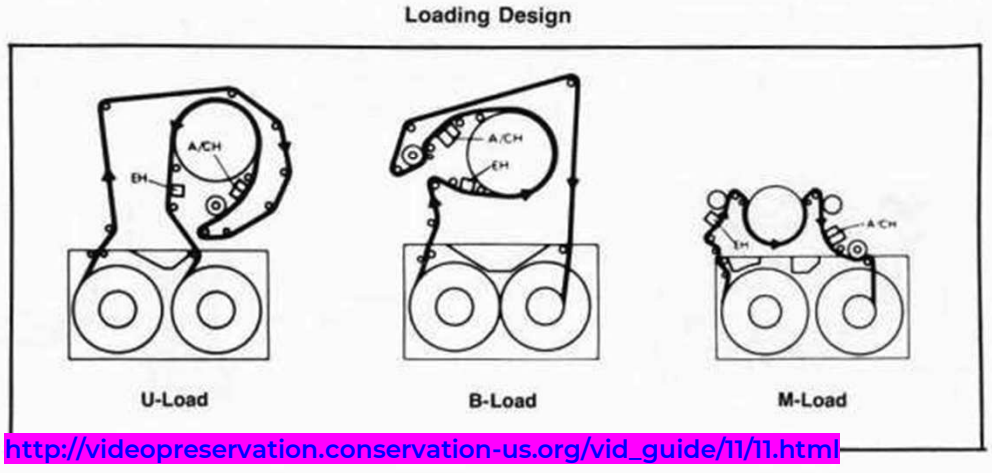
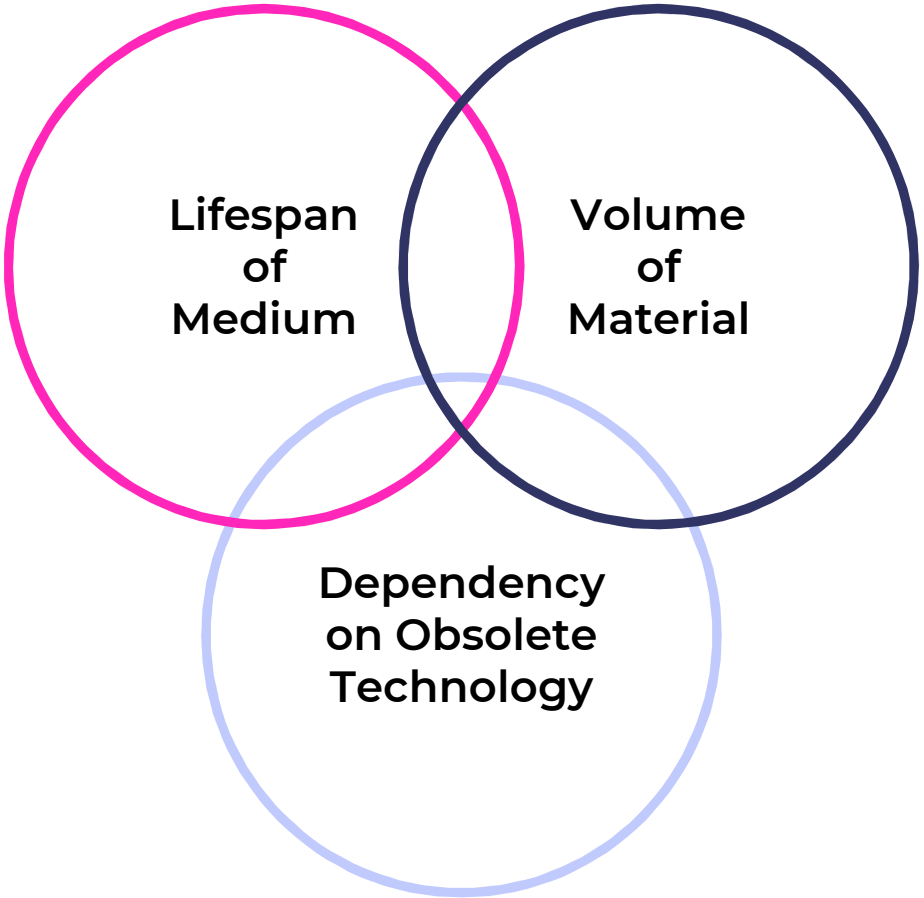


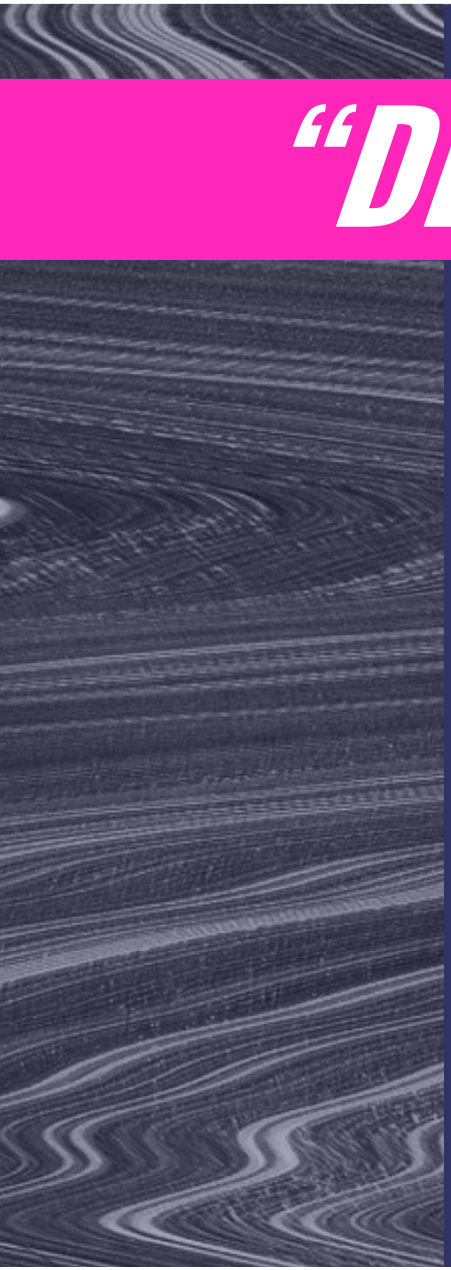
Photo: Brianna Toth



http://videopreservation.conservation-us.org/vid_guide/11/11.html

MAGNETIC MEDIA CRISIS





“DEGRALESCENCE”

- **END** of manufacturing
- **END** of availability in the commercial marketplace
- **END** of bench technician expertise
- **END** of bench technician tools
- **END** of calibration and alignment tapes
- **END** of parts and supplies
- **END** of availability in the marketplace
- **END** of playback expertise

Mike Casey, “Why Media Preservation Can't Wait: The Gathering Storm.” *International Association of Sound & Audiovisual Archives Journal*, no. 44, (January 2015): 14-22.

2028

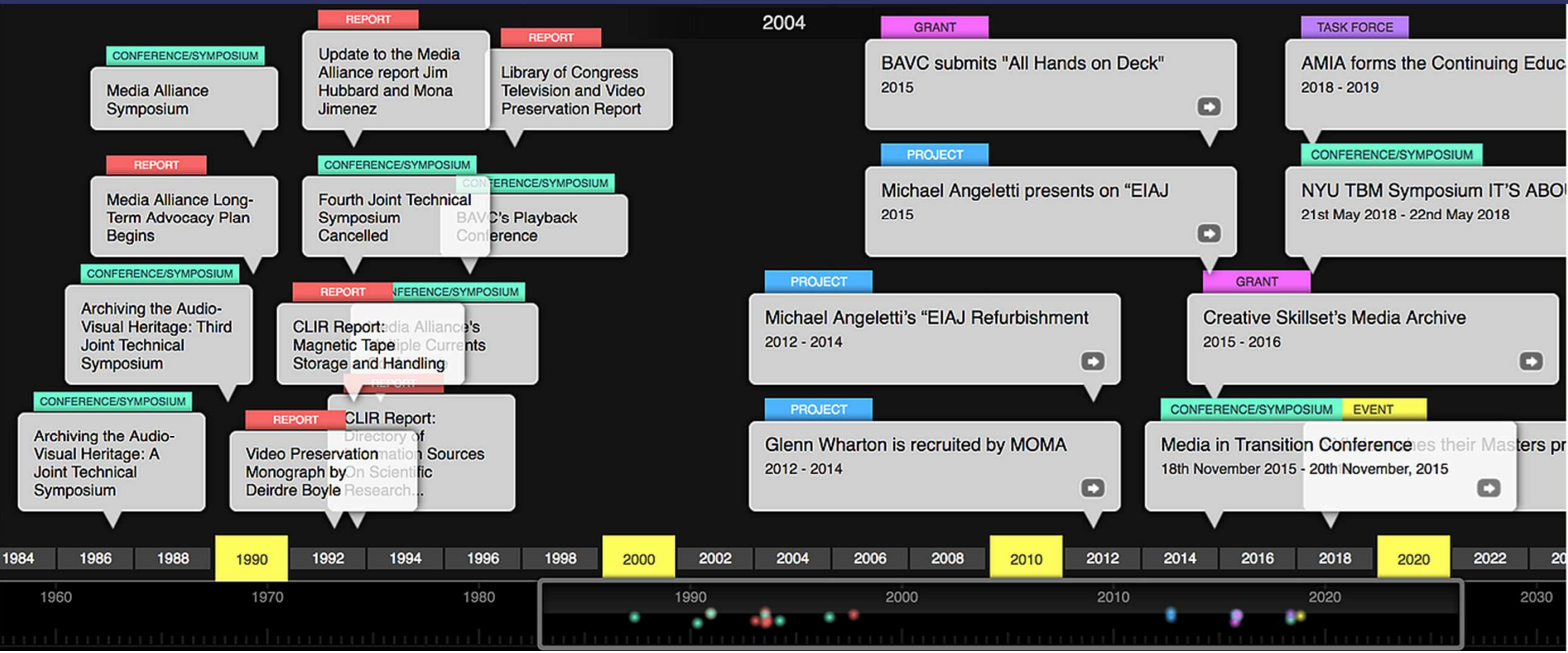
APPROXIMATELY 10-15 YRS LEFT

"In the mid-to long-term there is a major risk that carrier degradation combined with playback obsolescence will defeat the efforts of archivists..."

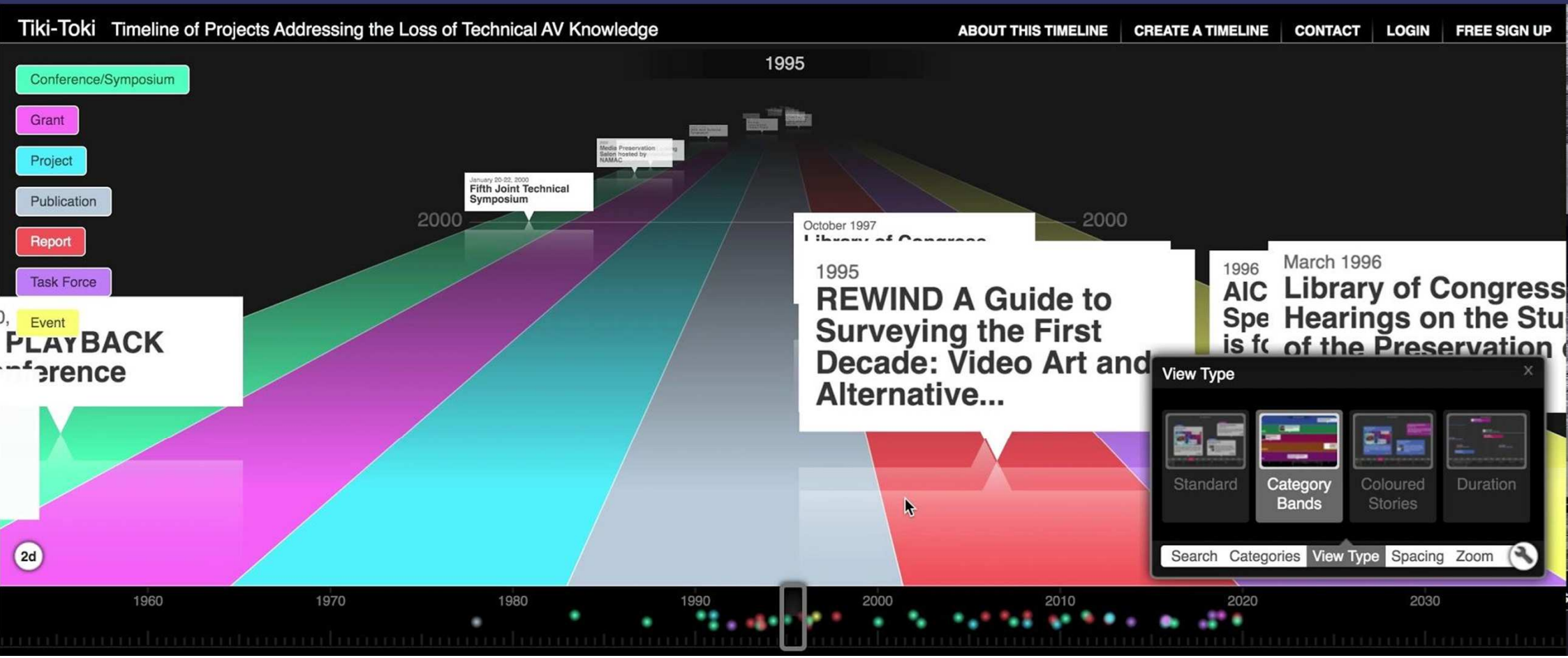
Task Force to establish the Selection Criteria of Analogue and Digital Audio Contents for Transfer to Data Formats for Preservation Purposes, International Association of Sound and Audiovisual Archives **(IASA) Editorial Group (2003)**

WHAT HAS BEEN DONE ???

TIMELINE VISUALIZATION



TIMELINE VISUALIZATION



FINDINGS

EMPHASIS ON PHYSICALITY OF MAGNETIC TAPE

Chemical makeup of magnetic tape, a potential video preservation format, cleaning techniques, proper storage conditions, video error identification

CATALOGUING STANDARDS

Believed in the 90s documentation was the first step to preservation and would assist with record sharing and grants.

PLAYBACK EQUIPMENT ABSENT

If included, it was a brief mention or footnote and the main focus remained carrier and object specific.

EQUIPMENT RELATED INSTANCES

- **2005** “The Artist Instrumentation Database Project” by Mona Jimenez
- **2008** “IMAP Obsolete Videotape Playback Equipment Project: National Survey Final Report” prepared by Jeffrey Martin
- **2012-2014** Michael Angeletti’s “EIAJ Refurbishment Project” at Stanford Preservation Lab
- **2015** BAVC submits “All Hands on Deck” Proposal to NEH twice without success
- **2019** UNESCO's Information for All Programme (IFAP) Working Group on Information Preservation launches the “Magnetic Tape Alert Project”

EQUIPMENT RELATED INSTANCES

2008 “IMAP Obsolete Videotape Playback Equipment Project: National Survey Final Report” prepared by Jeffrey Martin

APPROACH #1
MENTORSHIPS

BAY AREA VIDEO COALITION

HANDS-ON TECHNICAL PROFICIENCY & "GETTING UNDER THE HOOD"

BAVC's "All Hands on Deck" NEH Proposal

1. 30-hour training curriculum
2. Use the curriculum to teach a hands-on training workshop to 10 audiovisual archivists
3. Develop an online resource that made the curriculum freely available

PROS & CONS

PRO	PRO	CON	CON
Thorough and ensures knowledge is passed on correctly	Tried and tested	Cannot be applied on a large scale: Few can be taught at once and few who can teach	Time intensive nature of approach at odds with lifespan of medium

APPROACH #2
BOTTOM UP STRATEGIES

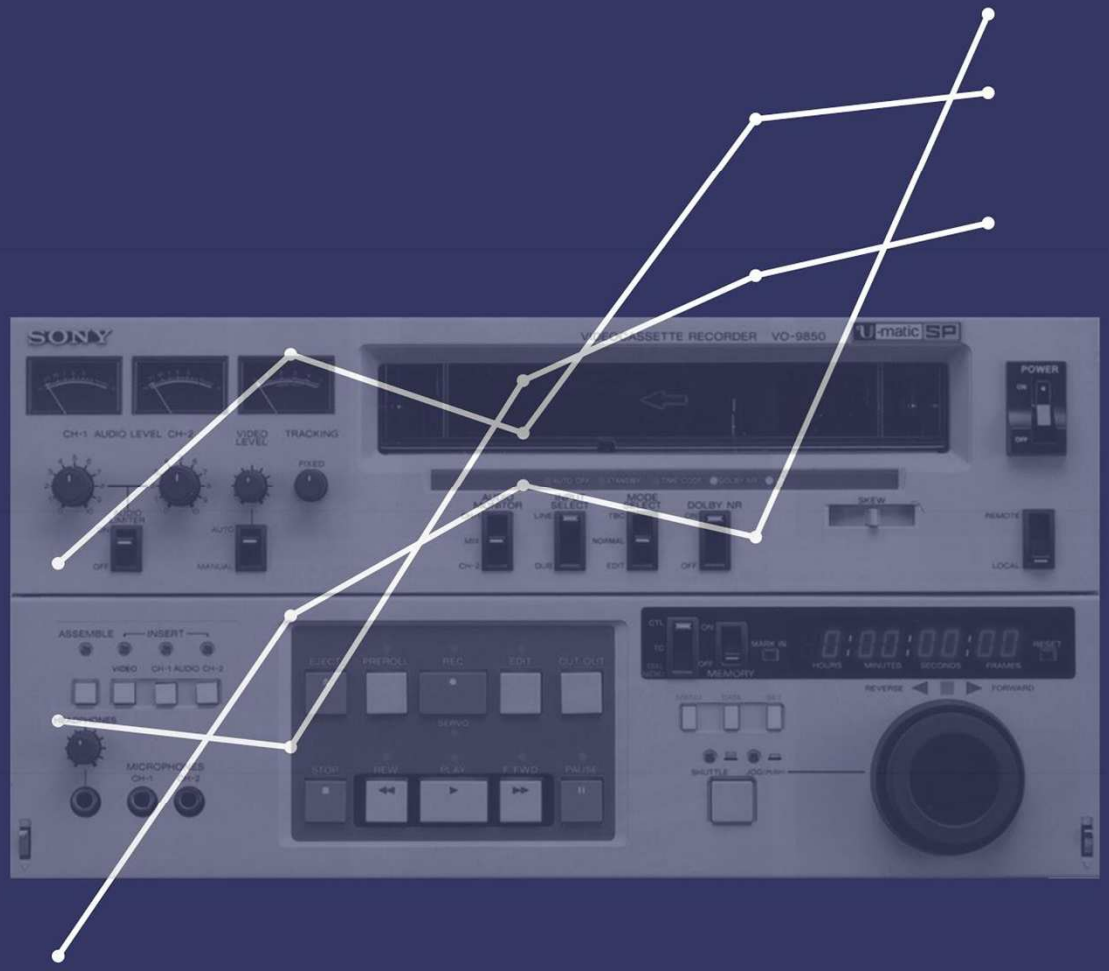
LARGE SCALE MIGRATION & DIGITIZATION

Indiana University Bloomington's Memnon-Sony Partnership

- MDPI is spearheaded by Mike Casey
- Massive digitize effort to transfer 350,000 items of significant media holdings by 2020
- Academic and corporate partnership

PROS & CONS

PRO	PRO	CON	CON
Example of marriage of archives and industry: sharing propriety knowledge	Tried and tested	Difficult to find incentive for companies to replicate: volume & competition	Specific nature of approach may not be possible to replicate elsewhere



MEASURING SCALABILITY

IRB SURVEY DESIGN

Survey was approved by the IRB in June

Widely distribute in January 2020

SKILLS

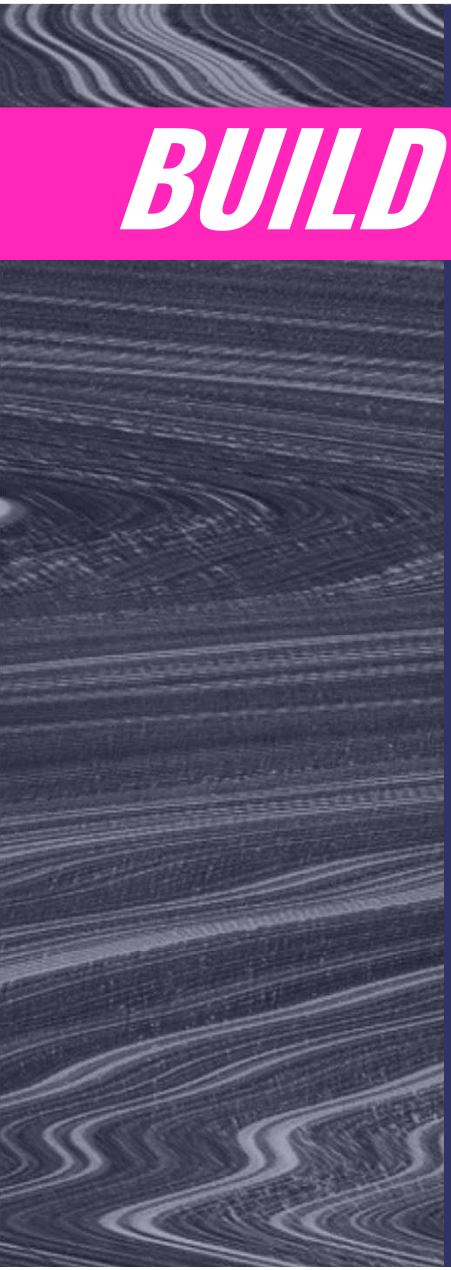
from AHOD grant proposal

- Tools required for playback machine repair
- Prepping tapes for playback
- Knowledge of the tape path (and ways to align the tape path)
- Proper cleaning techniques (for each format)
- Salvaging equipment from broken decks
- Servicing the video drum (and video heads)
- Tension adjustments
- Basic equipment testing
- Replacing belts
- Demagnetization
- Basic electronics for VTR maintenance (learning how to read schematics and circuit boards)

PLATFORMS

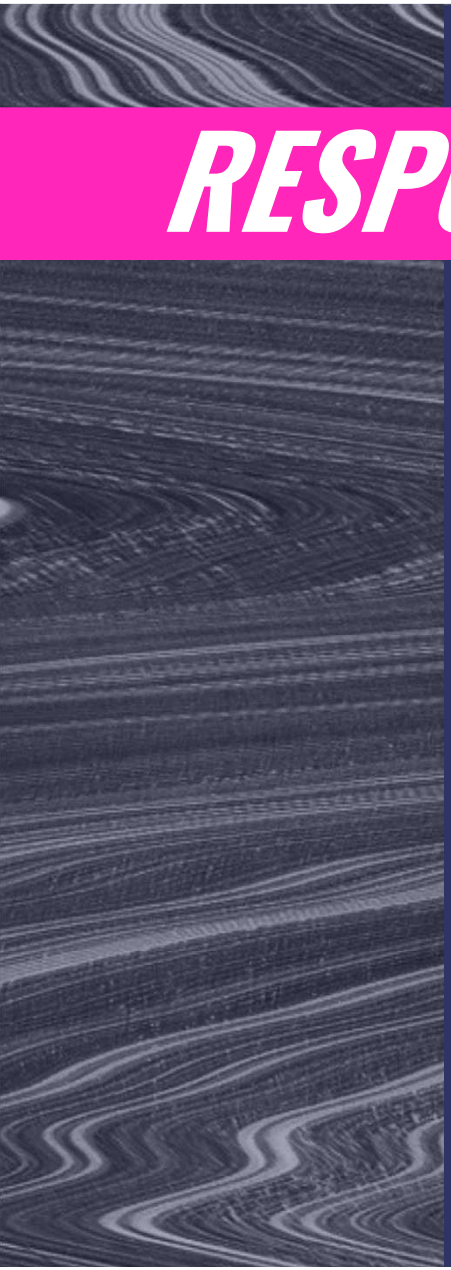
timeline instances

- Apprenticeships/mentorships
- Intensive workshops w/curriculum
- Partnerships with proprietary companies
- Co-op for spare parts or consortium to buy parts in bulk
- Narrated online demos
- Database of technical manuals
- Oral histories
- 3D printing of parts



BUILD ON EXISTING DATA

- Library of Congress's Television and Video Preservation Report (1997)
- A Public Trust at Risk: The Heritage Health Index Report on the State of America's Collections (2005)
- Magnetic Media Survey by Sarah Nguyen, Jared Nistler, and Darach Miller (2019)
- UNESCO's Magnetic Tape Alert Project (2019/2020)



RESPOND TO FEEDBACK

- What is the state of having access to equipment repaired?
- Who's doing repairs now? How does throwing more people into that pool help?
- Do the people coming to workshop have an inhouse crew at their own institution? Are the skills usable as soon as they get back to their home institutions?
- Is "creating jobs" a part of this?
- Who is the target audience (ex. early career, late period librarian, student, technician, etc.)?
- What are the tangible ways this helps AV archives?

POSSIBLE OUTCOMES

FORMAT SPECIFIC PRESERVATION **PRIORITIES** AND TRENDS

STRATEGICALLY MATCH RESOURCES, SKILLS AND NEEDS

USE IDENTIFIED SKILLS, CASE STUDY MODELS AND POTENTIAL PLATFORMS **MODULARLY**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