

Video Data Management Archive & Retrieval

- Advances in Data Acquisition and Management for Storage and Retrieval
 - Challenges Ahead
 - Legacy Data Rescue and Catalog
-
- What are your needs?
 - *Old Video, New Video, Annotated video, Hi-def*
 - How can we add value?
 - *Search function, Online downloads, Community science, E & O*



Video Data Management -- Advances

- extension of real time event logging to the Alvin system, and impending replacement of *Jason* event logger/Virtual Van with SeaLog
 - Potential as tool for video annotation
- web-based event logger
- next year: legacy Virtual Van data migrates to new system and hosting on a WHOI server
- *new 4K video systems are pushing NDSF into the big data world, and challenging our recording, processing, archiving, and retrieval systems*

2016 Video Workshop

- Pre-workshop Community survey
 - > 130 participants
- Held at URI in June 2016
 - ~70 participants
- Workshop Report:
 - <https://goo.gl/Sqpn6d>
- Ongoing concerns about video on at-risk media



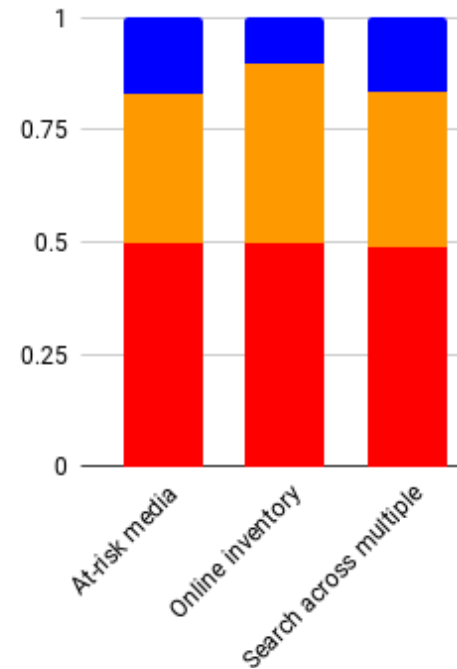
WORKSHOP REPORT:

Establishing Community Standards for Underwater Video Acquisition, Tagging, Archiving, and Access

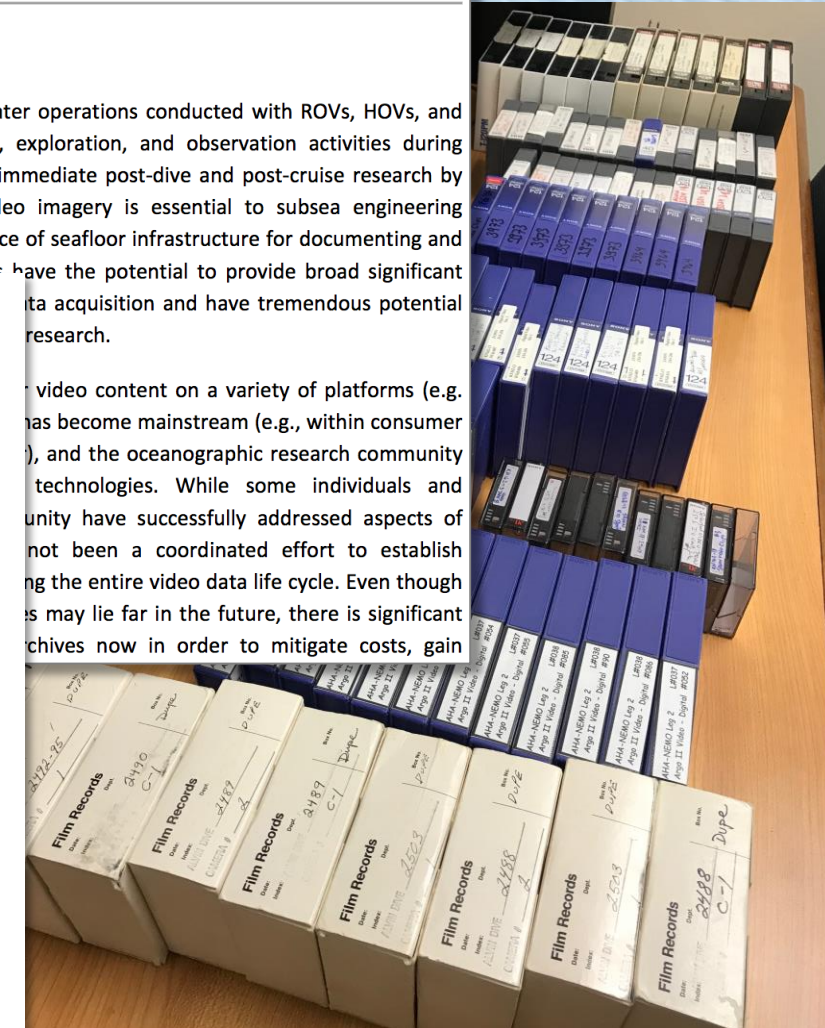
1 | Introduction & Motivation

Video imagery is an integral part of underwater operations conducted with ROVs, HOVs, and AUVs. These data are critical for sampling, exploration, and observation activities during seafloor operations and are key records for immediate post-dive and post-cruise research by the shipboard participants. In addition, video imagery is essential to subsea engineering activities including operations and maintenance of seafloor infrastructure for documenting and developing training materials. Video archives have the potential to provide broad significant data acquisition and have tremendous potential research.

Video content on a variety of platforms (e.g., YouTube) has become mainstream (e.g., within consumer electronics), and the oceanographic research community has adopted new technologies. While some individuals and institutions have successfully addressed aspects of video archiving, there has not been a coordinated effort to establish standards for the entire video data life cycle. Even though standards may lie far in the future, there is significant value in archiving now in order to mitigate costs, gain



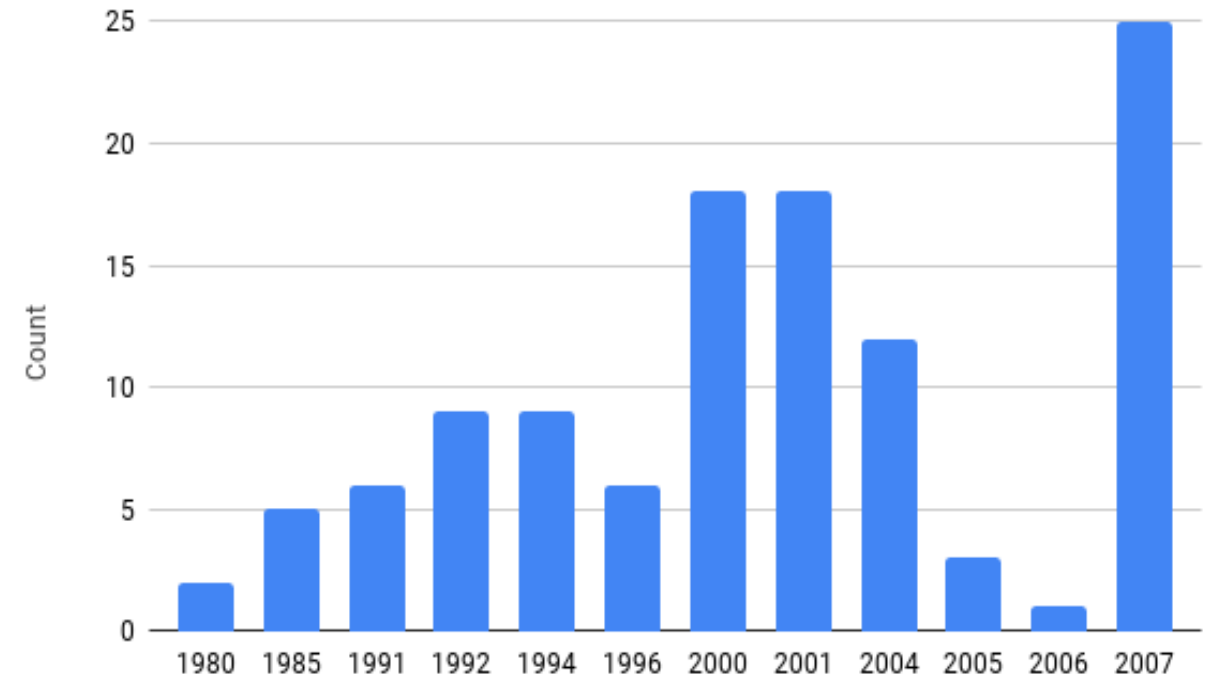
■ No Problem ■ Could be better ■ Major concern



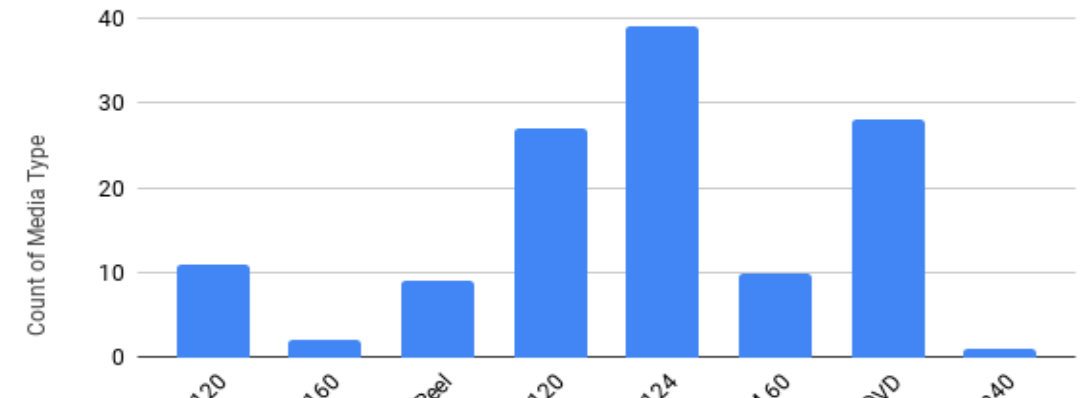
Legacy Video Data Rescue

- Assess cost of digitizing at-risk legacy video content
- Deal with acquisition issues
 - Media recorded 1980 – 2007
 - >250 hours footage
 - Jason, Argo II, Alvin
 - 8 media types
- Assess utility of digitized content for data analysis
- Gathering data to inform a potential larger-scale digitization effort

Media by Year



Media by Type



Status and Next Steps...

- Digitization completed summer 2018
- 3 Copies of digital content delivered:
 - 1 @ LDEO
 - 2 @ WHOI
- Content upload to YouTube
 - OceanVideoLab Channel (133 videos)
 - Publicly accessible
- Content registered in Ocean Video Lab
 - Citizen Scientist Tagging
 - Scientific Annotation
- Assessment of tags and annotations in progress
- Community invited to explore!

The image shows a screenshot of the OceanVideoLab YouTube channel and a video player interface. The top part shows the YouTube channel page for "Legacy Video Data Rescue" by OceanVideo Lab, which has 133 videos and 1 view. Below the channel name, there is a description: "Videos were provided on a variety of storage media and were professionally digitized in order to make them available digitally via YouTube. All video was acquired on platforms operated by Woods Hole Oceanographic Institution between the years of ... more". There are buttons for "Play all", "Share", "Playlist settings", and "Add videos". Below the channel name, there is a list of videos: "DVCam X Knorr 162 13 Indian Ocean Vents tape 2 of 3 - Highlights" by OceanVideo Lab (2:00:36), "DVCam 128" by OceanVideo Lab, "DVCam 127" by OceanVideo Lab, and "DVCam 126" by OceanVideo Lab. The bottom part shows a video player interface for "DVCam 111- Selected Clips". The video player shows a timestamp of 2001-04-06 00:00:15 and a progress bar. The video title is "DVCam 111- Selected Clips". The video player has controls for play, pause, stop, and volume, and an "Annotate" button.

Ocean Video Lab

oceanvideolab.org

- Underwater video exploration & annotation
 - Web browser based
 - Merged with navigation
 - Export capabilities
- Citizen Scientist Interface
- Available for use (go try it?)

