Digital Video Preservation & Access: Broad Strokes to Local Implementation

Amanda Focke, Monica Rivero, Jane Zhao
Fondren Library, Rice University, Houston TX 77005

Rice University's Fondren Library worked in 2012-2013 to make a collection of born-digital video oral histories, a part of Special Collections and Archives, available through its institutional repository. The process required research at every step and we had to figure out 1). which guidelines to use to direct our project; 2). what video formats, audio and video codecs to use for archival masters and streaming access copies; 3). What tools to use for converting video files; 4). How to stream access copies; 5). How to best describe the videos and make them findable.

Broad Strokes / Research Highlights
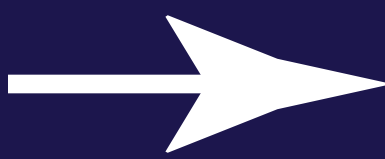
Guidelines: George Blood's 2011 white paper

- First, identified format: Blood's "Category 4, Born Digital, Non-tape Format"
- Second, planned steps for choices regarding Native bit depth and encoding, native raster as masters … and many more details

George Blood's 2011 white paper, "Refining Conversion Contract Specifications: Determining Suitable Digital Video Formats for Medium-Term Storage", page 78.

LOCAL implementation details: http://bit.ly/193xBhu

Analysis of Source Files

# of Video Files	File Wrapper	Video Codec	Audio Codec
313	MTS	H264	AC3
107	MPG	MPEG2	MPEG2
3	MP4	H264	AAC

Determination of Archival Masters and Streaming Access Copies

Masters	Access Copies
MOV + H264 + AAC	MP4 + H264 + AAC
Source files serve as masters.	

Streaming Access Copies

• HTML5 video streaming was not adopted since it doesn't allow viewers to skip forward and backward.

• Flash Streaming Server was used for a smooth playback.

• JW player is embedded so that playback does not depend on players on end user's computer.

Tools Used for Converting Files

- FFmpeg
- ffmbc
- HandBrake

All open source and free. Local recipes created for fine tuned conversions.

Final Project Online

Houston Asian American Archives
http://bit.ly/WgCK21

Metadata Challenges

Only basic metadata exists for these Vietnamese language videos. Volunteers and interns are enhancing descriptions over time.

Next steps: transcribe videos and link them to video timecode; and embed descriptive metadata into video files.