

**george blood audio**





**audio**

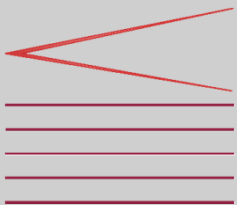
**. . . and video**

# **Describing Ourselves to Death:** The Failures of Metadata

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- George Blood Audio, LP

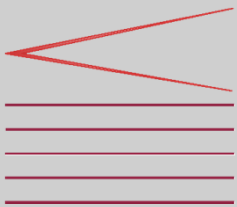
National Digital Stewardship Alliance  
January 2014, Philadelphia



Definition by ALA PARS

## Digital Preservation:

“Digital preservation combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change. The goal of digital preservation is the **accurate rendering of authenticated content over time.**”





### Advanced Search

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Enter search terms in at least one of the fields below

Keyword:

Title:

Author:

#### Narrow your search (optional)

Year:  to:   
Return only items published from e.g. 1971 e.g. 1977

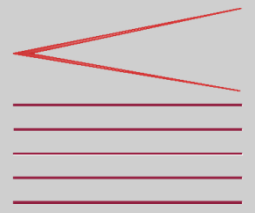
Audience:  Any Audience

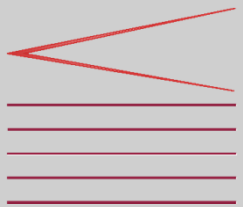
Content:  Any Content

Format:  All Formats

Language:  All Languages

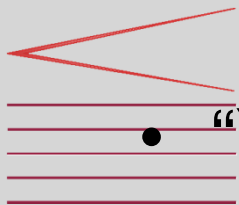
[Search](#) [Clear](#)





# In the words of Grace Hopper...

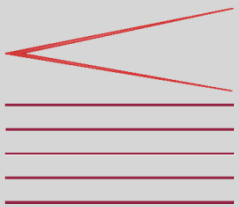
- “It's easier to ask forgiveness than it is to get permission”
- “A ship in a harbor is safe, but that is not what a ship is built for”
- “From then on, when anything went wrong with a computer, we said it had bugs in it”



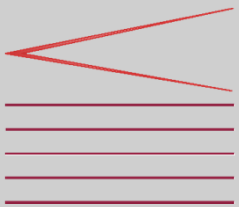
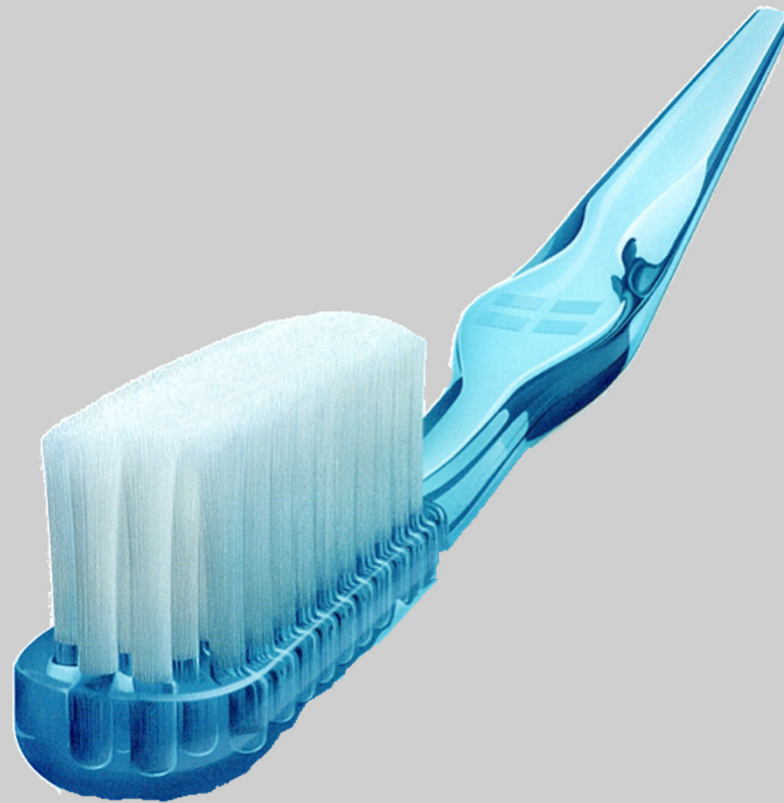
- “You manage things; you lead people”



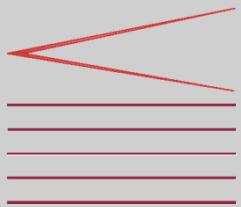
"The great thing about standards is that there are so many to choose from."



Standards are like toothbrushes.  
Everyone agrees they're desirable...



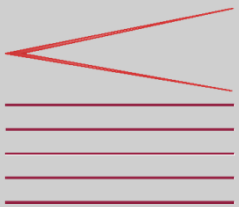
Standards are like toothbrushes.  
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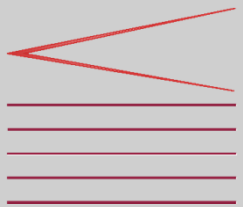
but nobody wants to use  
someone else's.

# Why are we collecting all this metadata?

- To provide for discovery
- To manage the files
- To provide provenance
- To provide authenticity
- Etc.

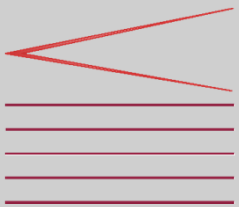


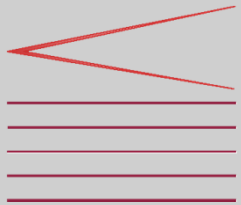


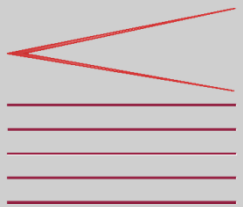


# Fundamental Problem

- Institutions don't ask
  - “What problem are we protecting against”,  
or
  - “What function do we need to provide for”?



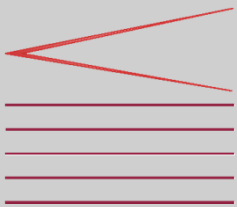






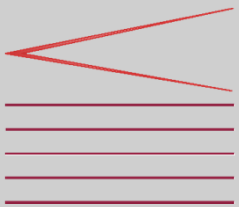
# Metadata

- ≠ Cataloging and Description
  - Cataloging and Description aid discovery
  - Metadata allows the data to function in systems
- How much is enough?
- Is it possible to have too much?
- Why do we need more than we did before?
  - Are we moving the goal posts?
  - To what extent are our neuroses about digital preservation a reflection of our failures in analog preservation?
  - Is more metadata less product? By doing “better” for one object are we preserving less overall?
- Has anyone asked the users what they need?



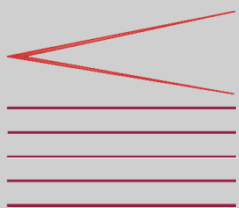
# Organizing metadata

- “Standards”
- Toothbrushes

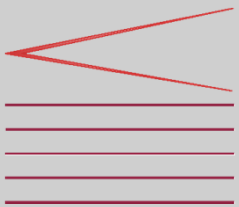


# What is a standard?

- How widely adopted?
- If everyone is doing something... is that good enough to be a “standard”?
- Does a standard have to be perfect?
- Does one size fit all?
- If there’s a standard and no one uses it, what’s it matter?
- What are the implications if there’s a standard and it is “locally modified”?
- If you make your own “standard”, in what ways does this enhance or inhibit preservation and long-term access?
  - **Aren’t we taught to avoid proprietary solutions? Why not for metadata?**



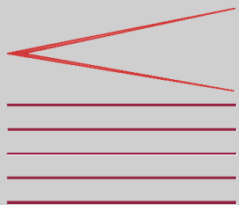
# **SIPS: The State of the “Art”**





# Oberlin metadata

Barry Commoner (Assembly). 10.19.1961		A-M N-Z AA-AM AN-AZ BWAV WAV/INFO ID3 AAC					
A	Ship to SSA Date						A
B	Shipping Box Number	1					B
C	Object Unique Identifier						C
D	Program Unique Identifier	Commoner. 10.19.1961					D
E	Number of Original Media Units	1					E
F	Original Format	Reel					F
G	Notes to Engineer						G
H	Original Recording Date	10/19/1961					H
I	Complete Name	Barry Commoner					I
J	Title						J
K	Description	"The Social Responsibility of the Scientist"					K
L	Description						L
M	File Name Root	Barry Commoner (Assembly). 10.19.1961					M



# NYPL - LPA metadata

2	3008e	3008b1	3008e					3008b2	
3	date	audio_object	analog_digi_ri	gauge	base_material	oxide	stock_brand	equalization	sound_field
4				1/4 inch	Acetate		Scottish 111-24R	NAB	Mono

2	949\$a			
3	primary_identifier	sub_object_id	audio_data_encoding	delivery_medium
4				
5	*MGZTCO 3-2586	pt. 1	PCM	USB Hard Drive & LTO4 Data Tape
6	*MGZTCO 3-2586	pt.2	PCM	USB Hard Drive & LTO4 Data Tape
7				
8	*MGZTO 5-60			
9				
10	*MGZTO 5-118			
11	*MGZTO 5-118			
12	*MGZTO 5-118			
13				

1	949\$a			
2	primary_identifier	disc_number	audio_object	datetime_create
3				
4				
5				
6	*MGZTCO 3-2586	*M		
7	*MGZTO 5-60	*M		
8				
9				
10	*MGZTO 5-118	*M		
11				
12				
13				

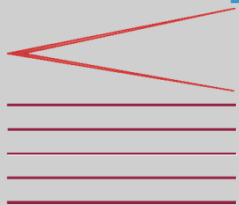
  

1	949\$a			
2	primary_identifier	disc_number	audio_object	datetime_create
3				
4				
5				
6	*MGZTCO 3-2586	*MGZTL 4-2586	CD	2009-04-02T9:29:59-4:00
7				
8				
9	*MGZTO 5-60	*MGZTL 4-60	CD	2009-04-02T9:45:23-4:00
10				
11	*MGZTO 5-118	*MGZTL 4-118	CD	2009-04-02T12:9:35-4:00

\*MGZTD 4-[suffix] is the primary identifier for the dubbing master created from the source recording

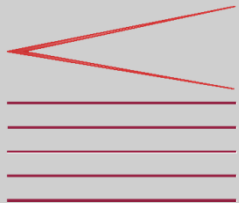
\*MGZTL 4-[suffix] is the primary identifier for the service copy created from the source recording

Source recordings    Digital File (WAV file)    Dubbing master (Optical Disc)    Service copy (Optical Disc)



# UMichigan RFI

University of Michigan Library		Audio Digitization Metadata List			Updated July 21, 2009		
Field	Relation	Definition	Example	Required Status	Population	Origin	
analog_digi_flag	Source recording	describes the method by which a physical audio object was recorded	Analog or Digital	Mandatory	U of M	LC	
dimensions_diameter	Source recording	audio object's diameter (in inches)	10 inches	Mandatory, if applicable	U of M	LC	
dimensions_height	Source recording	audio object's height (in inches)	4 inches	Mandatory, if applicable	U of M	LC	
dimensions_width	Source recording	audio object's width (in inches)	3 inches	Mandatory, if applicable	U of M	LC	
originating_library	Source recording	Library from U of M of which the source recording is a part.	SCL (Special Collections)	Mandatory	U of M	UM	
originating_collection	Source recording	Collection from U of M of which the source recording is a part.	Rossiter, Wilson/Welles	Mandatory	U of M	UM	
generation	Source recording	describes the physical audio object	studio master, master, dub, original disc, etc.	Optional	U of M	LC	
audio_object	Source recording	an audio object's generic format name	LP, audio cassette, DAT, etc.	Mandatory	U of M (with vendor override)	HVD	
condition_note	Source recording	description of the state of a source recording's physical condition		Mandatory	U of M (with vendor override)	HVD	
audio_data_encoding	Digital file	structure for digital audio data	Pulse Code Modulated (PCM)	Mandatory	U of M	LC	
file_locat_value	Digital file	location of digital file within U of M	TBD	Mandatory	U of M	LC	
file_name	Digital file	Identifier of digital file	Barcode + face/track (390151234567890001)	Mandatory	U of M provides barcode / Vendor generates the latter	UM	
base_material	Source recording	a recording's base material	glass, aluminum, polycarbonate, unknown, etc.	Mandatory	Vendor	HVD	
dye_layer	Source recording	describes the dye present in recordable optical discs	phthalocyanine, cyanine	Mandatory if applicable	Vendor	NYPL	
equalization	Source recording	specific name of recording's inherent equalization (pre-emphasis)	NAB, Type I, Type II, unknown, etc.	Mandatory if applicable	Vendor	HVD	
gauge	Source recording	pertains to audio tape (expressed in inches)	1/4", 1/2", etc.	Mandatory if applicable	Vendor	HVD	
groove_orientation	Source recording	pertains to analog grooved media	Lateral or Vertical	Mandatory if applicable	Vendor	HVD	
sampling_frequency	Digital file	rate at which audio was sampled for digital file	96K, 48K, 44.1K, etc.	Mandatory	Vendor	LC	
format_name	Digital file	official name of the file format	Broadcast Wave Format	Mandatory	Vendor		
note		any additional notes about the source recording, the preservation master file, production master file or access copy	tracks, titles, timing, editing, processing	As necessary	Vendor	LC	



# SI AAA Metadata

johnso68\_1of1\_reel\_Side

A-M N-Z AA-AM AN-AZ BWAV WAV/INFO ID3 AAC

Include BWAV metadata?

Description Oral history interview with Ray Johnson, 1968 Apr. 17; Johnson, Ray ; Fesci, Sevim; 4/17/1968

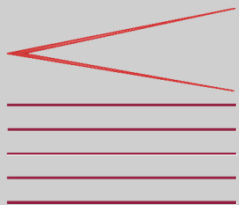
Originator Smithsonian Institution

Originator Reference Archives of American Art

Origination Date 2008-12-09


Coding History (Master) A=ANALOG,M=mono,T=Revox\_A700; 20869; Audiotape  
A=PCM,F=96000,W=24,M=mono,T=PrismSound; ADA-8XR; A/D  
A=PCM,F=96000,W=24,M=mono,T=MetricHalo; ULN-2; DIO  
A=PCM,F=96000,W=24,M=mono,T=SoX14.1; DAE

+ Service Copy A=PCM,F=44100,W=16,M=mono,T=SoX14.1; DAE






# SI AAA Second Project

AAA\_saaralin\_ABCradio\_disc1of3  A-M N-Z AA-AM AN-AZ BWAV WAV/INFO ID3 AAC

Include BWAV metadata?

Description 211237, local, SIRIS bib number; 5589, local, DCD Collection ID; 11062, local, DCD Item ID


Originator  US, SI, Archives of American Art

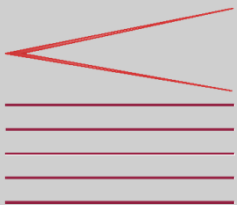
Originator Reference See Description for identifiers

Origination Date 2009-08-19

Coding History (Master) A=ANALOG,M=stereo,T=Technics\_SP-15; SFNN105M01; Unknown  
A=PCM,F=96000,W=24,M=stereo,T=PrismSound; ADA-8XR; A/D  
A=PCM,F=96000,W=24,M=dual-mono,T=MetricHalo; ULN-2; DIO  
A=PCM,F=96000,W=24,M=stereo,T=SoX14.1; DAE

+ 137 A=PCM,F=44100,W=16,M=stereo,T=SoX14.1; DAE





# SI Hirshhorn and SI AAA

Sample Rate:  
96000

Bit Depth:  
24

Duration:  
0:42:19

INFO Name:  
Hess, Thomas B. "The Breakthrough of Abstract Expressionism."

INFO Artist:

INFO Date:  
20090908

INFO Archival Location:  
Smithsonian Institution Libraries, Hirshhorn Museum Library

INFO Copyright:  
Material may be protected by copyright. Restrictions may apply.

BEXT Description:  
Hess, Thomas B. "The Breakthrough of Abstract Expressionism."  
Lecture at NGA, 11-4-73: 0001, File Identifier: HMSG0001A-B, Tape Identifier

BEXT Originator:  
Hirshhorn Museum Library

BEXT Originator Reference:

BEXT Origination Date:  
2009-09-08

BEXT Time Reference:  
0

BEXT Version:  
1

BEXT Coding History:  
A=ANALOG,M=stereo,T=Nakamichi\_Dragon; 09095; TDK\_C90  
A=PCM,F=96000,W=24,M=stereo,T=PrismSound; ADA-8XR; A/D  
A=PCM,F=96000,W=24,M=dual-mono,T=MetricHalo; ULN-2; DIO  
A=PCM,F=96000,W=24,M=stereo,T=SoX14.1; DAE

Sample Rate:  
96000

Bit Depth:  
24

Duration:  
0:56:32

INFO Name:

INFO Artist:

INFO Date:

INFO Archival Location:

INFO Copyright:

BEXT Description:  
Oral history interview with Tony Rosenthal, 1968 May 10-June 29.;  
Tony; Sevim; 1968 May 10-June 29

BEXT Originator:  
Smithsonian Institution

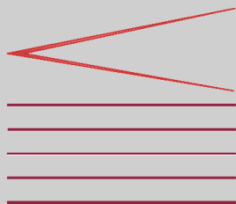
BEXT Originator Reference:  
Archives of American Art

BEXT Origination Date:  
2009-09-22

BEXT Time Reference:  
0

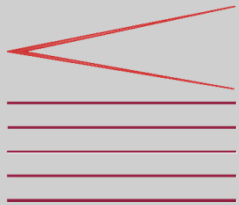
BEXT Version:  
1

BEXT Coding History:  
A=ANALOG,M=mono,T=Revox\_A700; 13652; Audiotape\_1251  
A=PCM,F=96000,W=24,M=mono,T=PrismSound; ADA-8XR; A/D  
A=PCM,F=96000,W=24,M=mono,T=MetricHalo; ULN-2; DIO  
A=PCM,F=96000,W=24,M=mono,T=SoX14.1; DAE



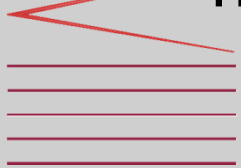
# CUL METS

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- <mets:metsHdr CREATEDATE="2009-10-15T15:22:19-04:00">
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    <mets:name>Safe Sound Archive</mets:name>
  </mets:agent>
  - <mets:agent ROLE="PRESERVATION" TYPE="ORGANIZATION">
    <mets:name>Columbia University Libraries</mets:name>
  </mets:agent>
</mets:metsHdr>
- <mets:dmdSec ID="dmd1">
  - <mets:mdWrap MDTYPE="DC">
    - <mets:xmlData>
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        - <dc:title>
          Jonah J. Goldstein Oral History Interview : Source Audio Recording, no. 1
        </dc:title>
        <dc:identifier>Goldstein_JonahJ_7139260_01</dc:identifier>
        <dc:type>sound</dc:type>
      </oai_dc:dc>
    </mets:xmlData>
  </mets:mdWrap>
</mets:dmdSec>
- <mets:amdSec ID="amd1">
- <mets:techMD ID="techmd1">
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    - <mets:xmlData>
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        name="Jhove" release="1.1" date="2008-02-21">
        <date>2009-10-15T15:22:19-04:00</date>
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        /Goldstein_JonahJ_7139260_01_01_m.wav">
        <reportingModule release="1.3" date="2007-12-14">WAVE-hul</reportingModule>
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      - <sigMatch>
        <module>WAVE-hul</module>
      </sigMatch>
    </mets:xmlData>
  </mets:mdWrap>
</mets:techMD>
  <message offset="848" severity="info">Chunk type 'PAD' ignored</message>
</messages>
<contentType>audio/x-wave</contentType>
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# How will any of this provide for discovery, management, provenance, etc?

- It all has to be done manually.
- It is just as much work to create software tools to read the metadata as to make it.
- It costs more to do the metadata work on some projects than the digitization.
- What will be the cost to reformat the metadata when the digital file is migrated?

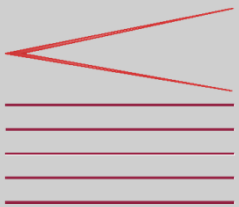


Open Source!

Open Standards!!

Interoperability!!!

Except MY Metadata





# DIPs: Let's get religion

