

COST OF INACTION CALCULATOR

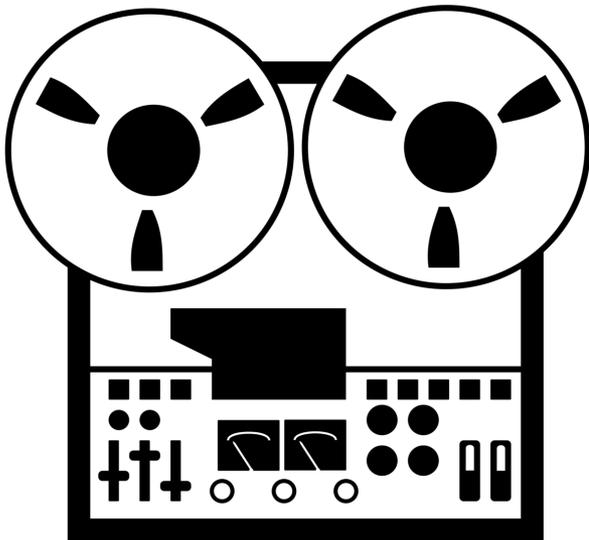
Kara Van Malssen | AVPreserve | kara@avpreserve.com

www.avpreserve.com
coi.avpreserve.com

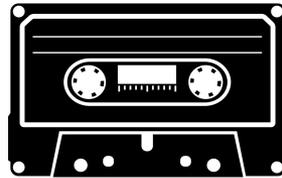
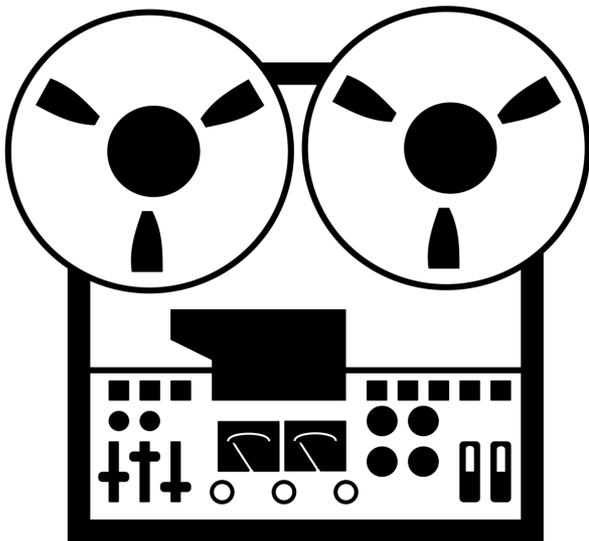
Designing Storage Architectures for Digital Collections 2014
September 22-23, 2014
Washington, DC

THE END

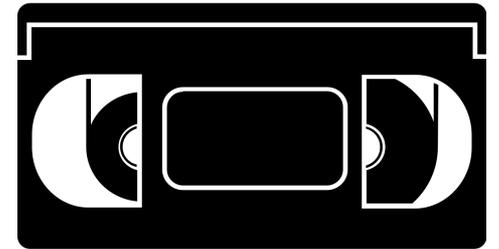
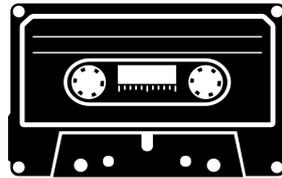
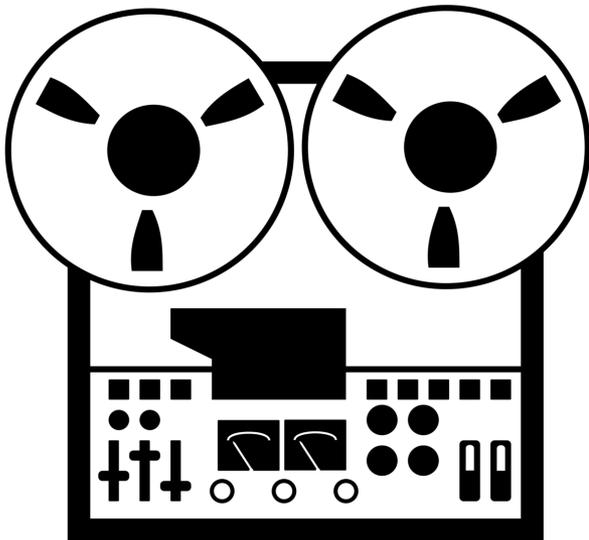
THE END



THE END



THE END



YOU ARE
HERE



THE END

“...it is alarming to realize that nearly all recorded sound is in peril of disappearing or becoming **inaccessible within a few generations.**”

— National Recording Preservation Board in “Capturing Analog Sound for Digital Preservation” (2006)

“...many analog audio **recordings must be digitized within the next 15 to 20 years** – before sound carrier degradation and the challenges of acquiring and maintaining playback equipment make the success of these efforts too expensive or unattainable.”

— The Library of Congress National Recording Preservation Plan
(2012), page 7

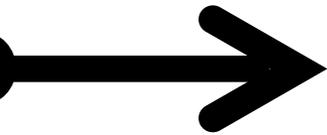
“So that’s it: going, going, **gone for analog by 2023**”

— Richard Wright, PrestoCentre Blog (**2013**)

“How much time do we have? **10 – 15 Years**”

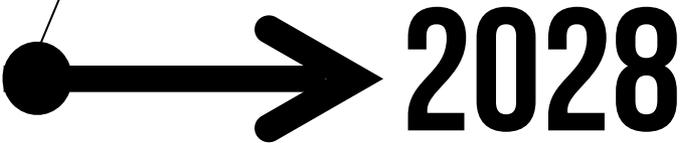
– Michael Casey, Indiana University, Association for Recorded Sound Collections (ARSC) Conference (**2013**)

YOU ARE
HERE



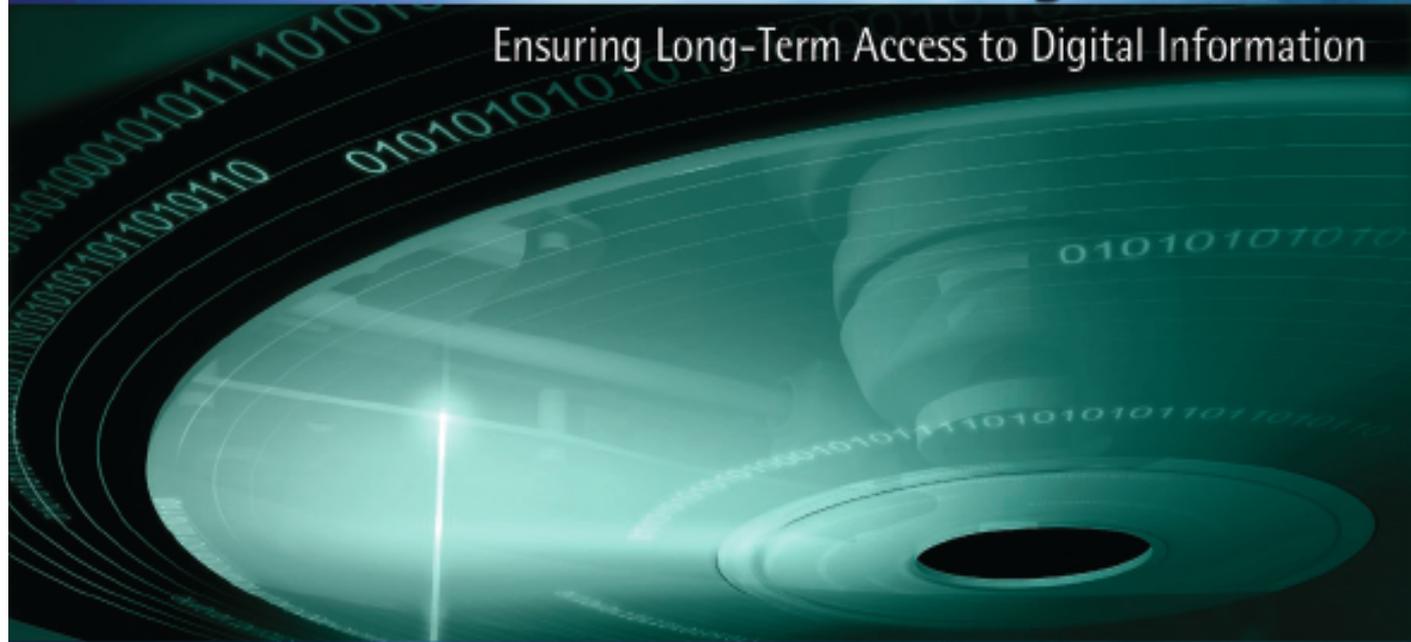
14 YEARS

YOU ARE
HERE



Sustainable Economics for a Digital Planet:

Ensuring Long-Term Access to Digital Information



February 2010

Final Report of the
Blue Ribbon Task Force on
Sustainable Digital Preservation and Access

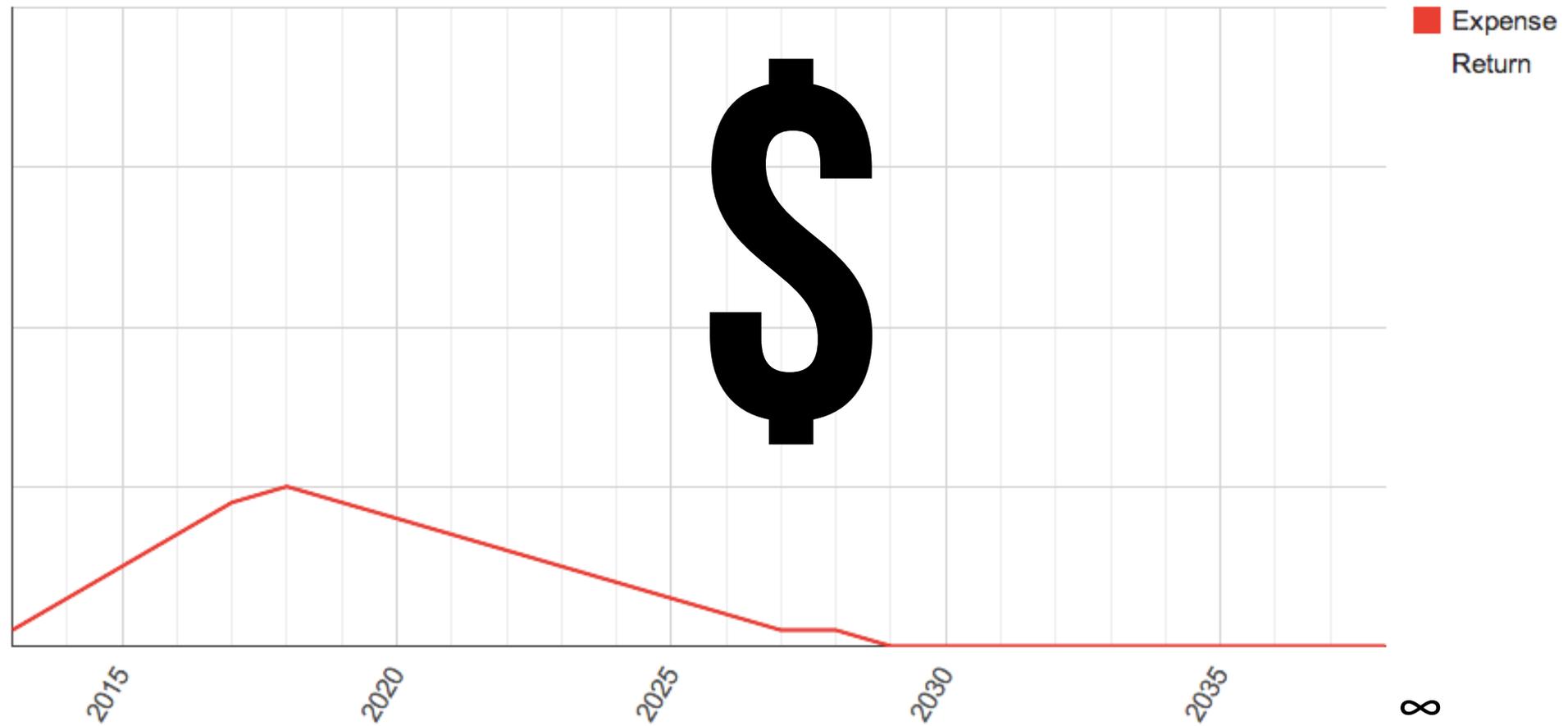
“Another **misleading perception** about digital preservation investments is that ...choices are binary: **either we implement intensive preservation ...immediately and forever; or we do nothing** A relatively small investment may be enough to preserve the **option of making larger commitments** in the future.”

— Blue Ribbon Task Force: Sustainable Economics for a Digital Planet (2010), Page 99

“Commitments made today are not commitments for all time. But **actions must be taken today to ensure flexibility in the future**”

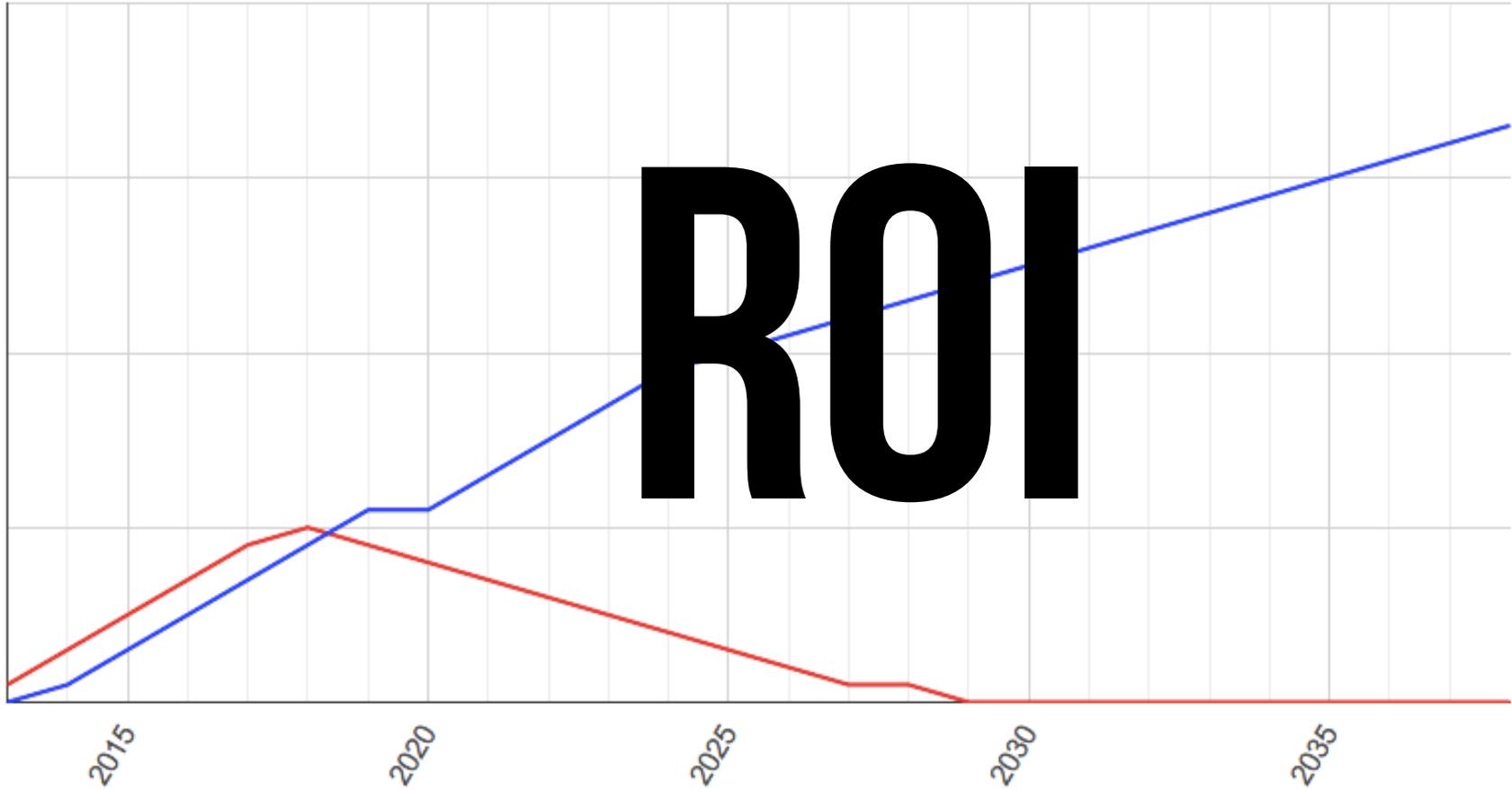
— Blue Ribbon Task Force: Sustainable Economics for a Digital Planet (2010), Page 5

\$

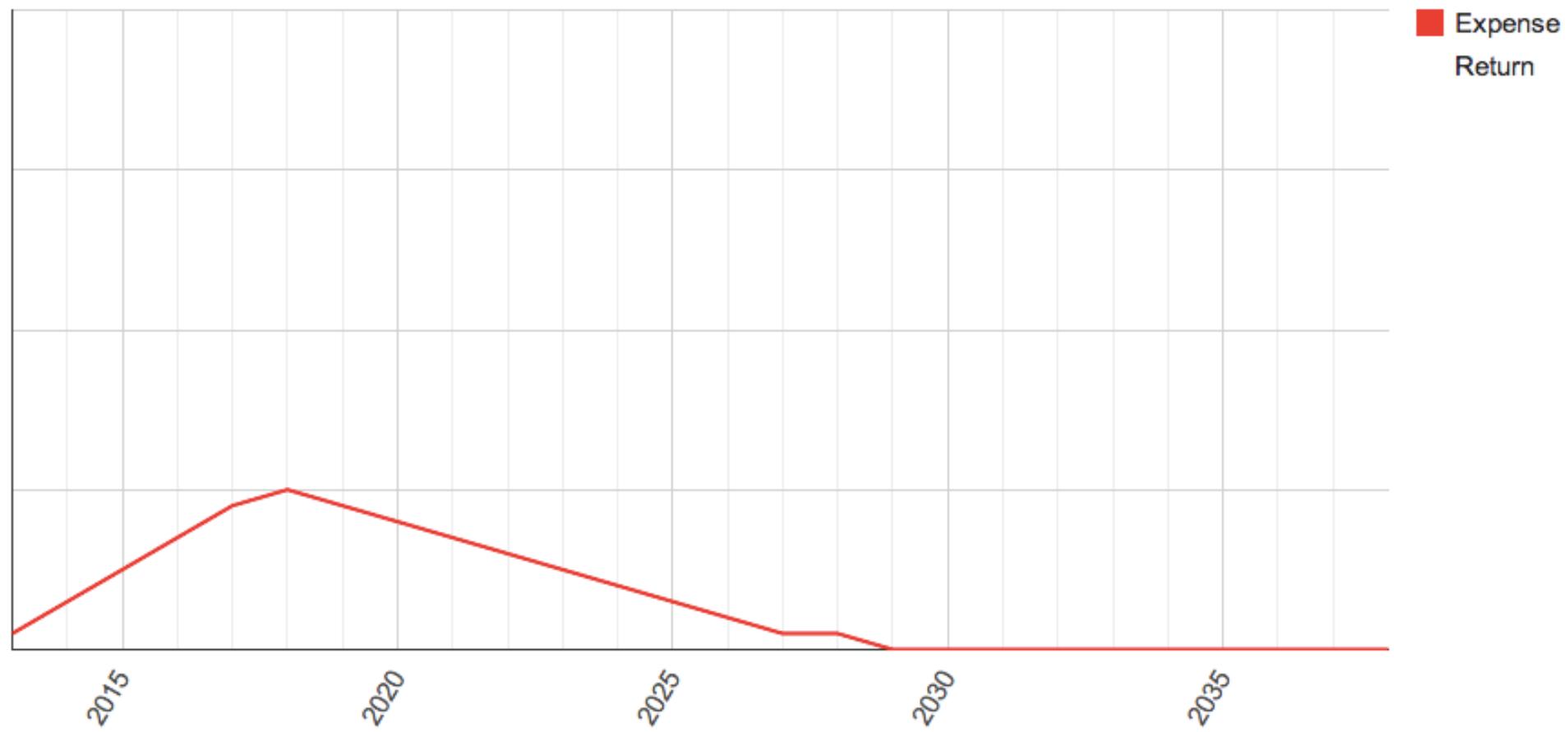


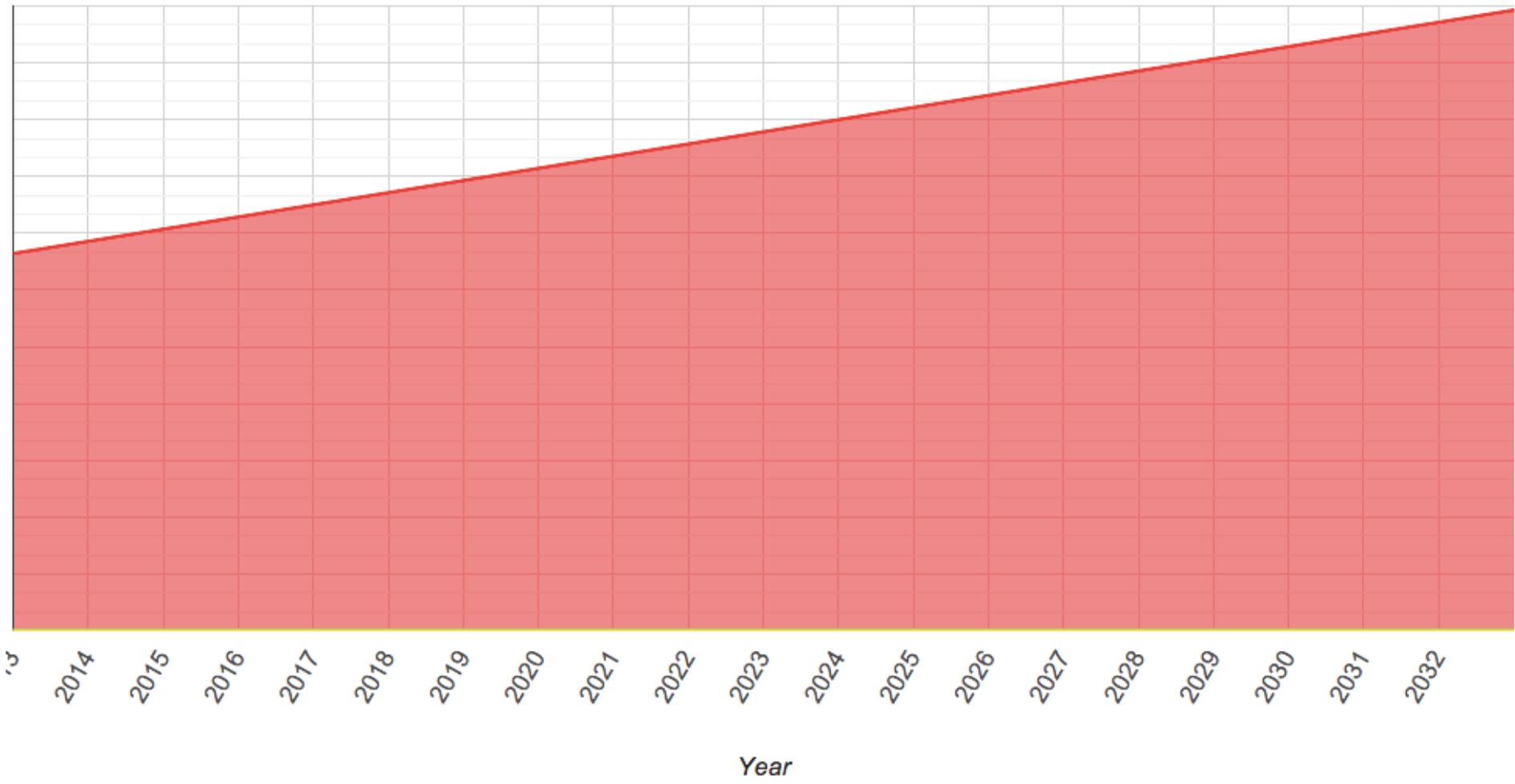
ROI

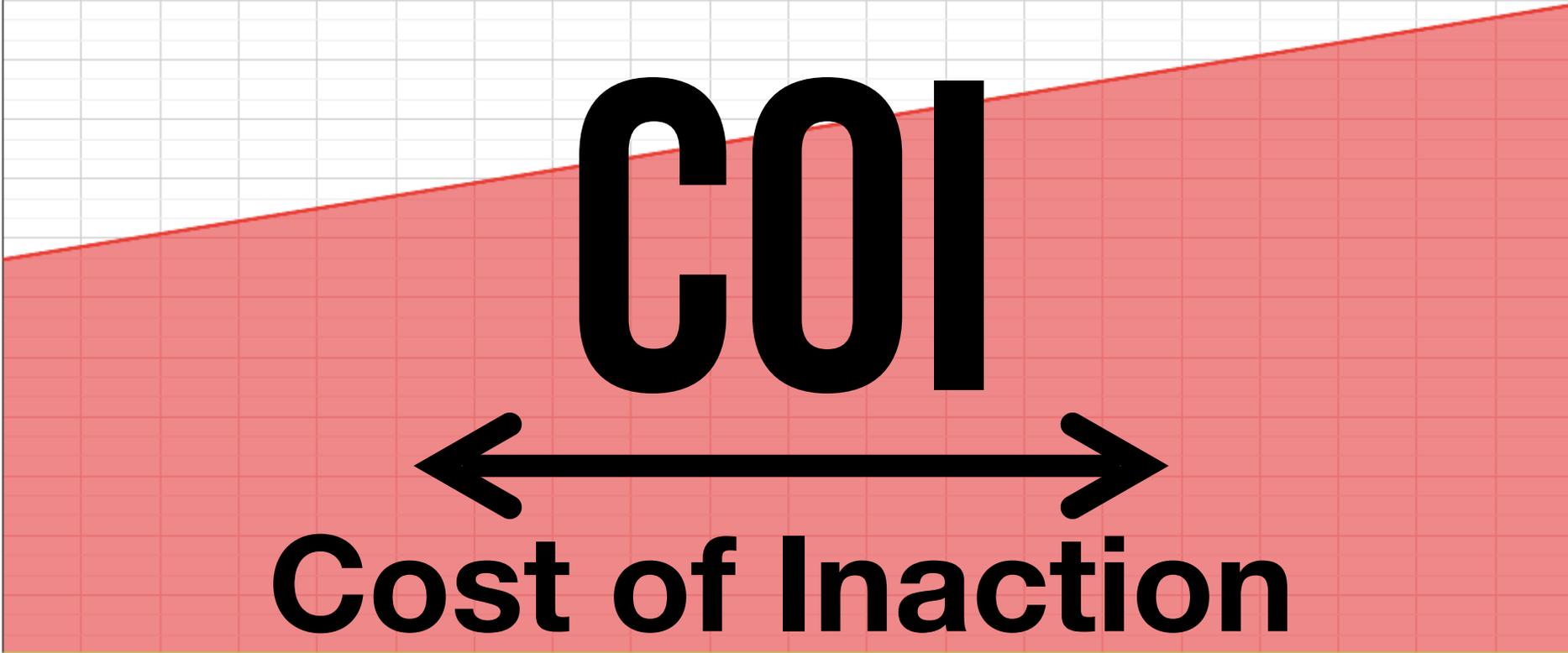
Expense
Return



8







COI

←→

Cost of Inaction

2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032

Year

SCENARIOS

A

B

C

Digitization Budget	\$375k	\$375k	\$100k
Digitization Start	2020	2014	2014
Content Lost	37,075	16,443	40,929
Investment Lost	\$4.89M	\$1.37M	\$5.20M



Level 4: Repair your data

Level 3: Monitor your data

Level 2: Know your data

Level 1: Protect your data

COST OF INACTION CALCULATOR



You've invested time and money to preserve the physical objects in your media collection.



However, over time audiovisual materials will become unusable due to decay and obsolescence.



The only way to save your collection is to reformat through digitization.



The cost of digitization may be great, but the cost of inaction may be even greater.

[ANALYZE YOUR COLLECTION »](#)

Use our calculator to analyze your Cost of Inaction



Provides concrete data points to help



Offers financial and non-financial



Generates a timeline for planning and



Enables comparative analysis of

Save

Get Link



Enter your collection details

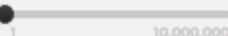
Last year for magnetic media?

2028



Number of objects in collection?

50,000

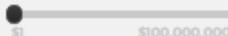


Collection's audio-video percentage?



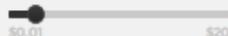
Investment to date for media?

\$4,500,000



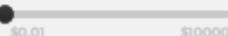
Annual cost per media item moving forward?

\$3



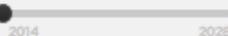
Digitization cost per

\$60



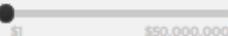
Year you will start digitizing items?

2014



Annual digitization

\$475,000

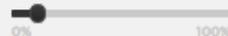


Storage service?

Amazon

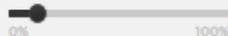
Annual decrease in cost of storage?

15%

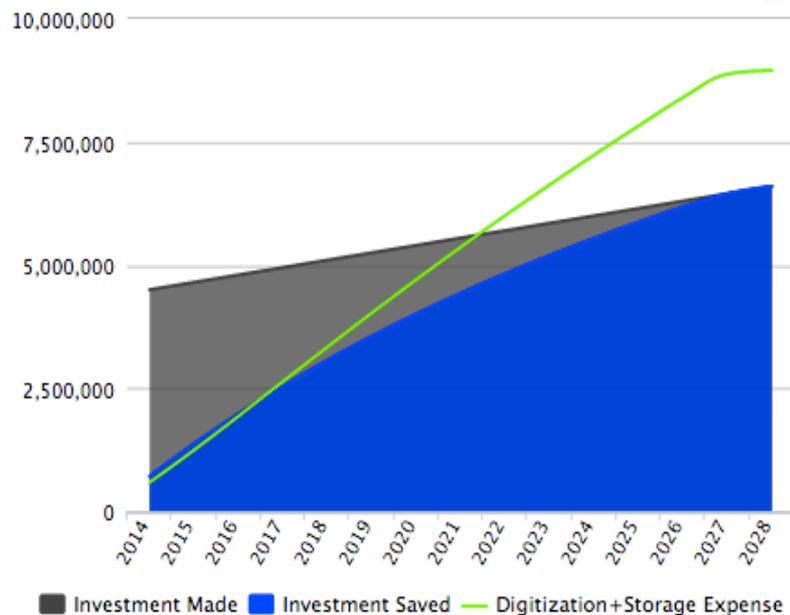


Annual increase in cost of digitization?

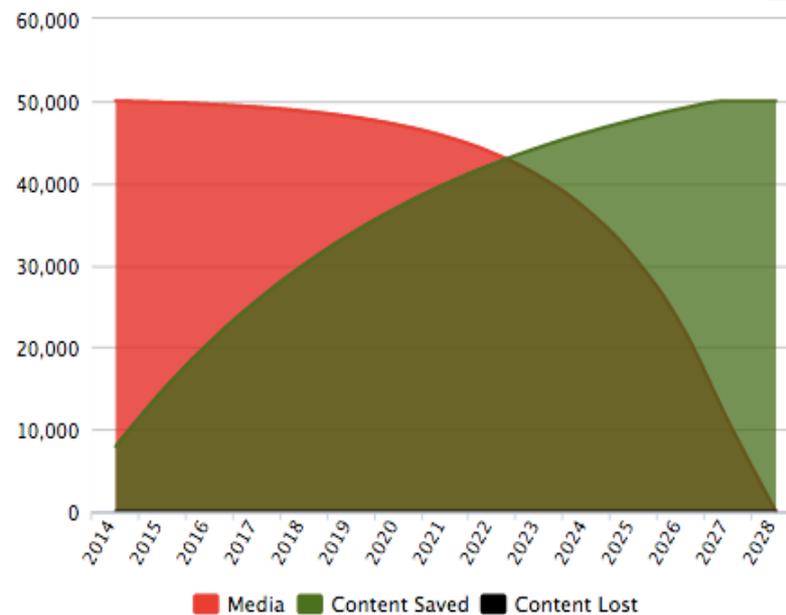
16%

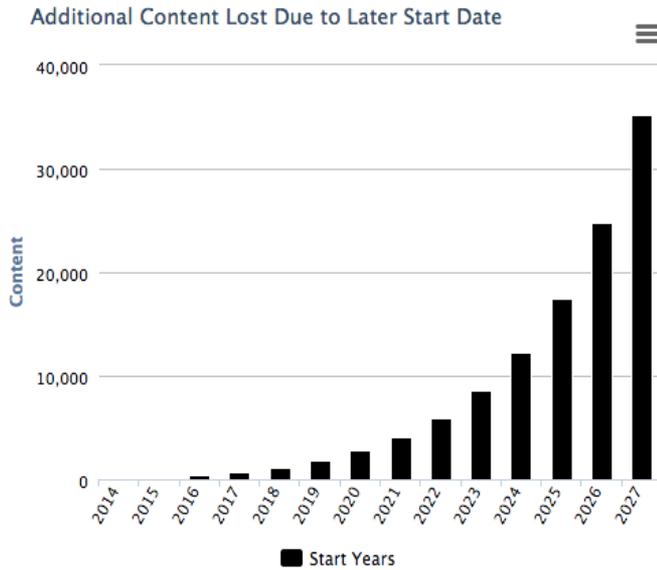


Investment Analysis



Item and Accessibility Analysis





Export to CSV

Year Digitization Started	Annual Digitization Budget Required	Storage Cost by 2028	Total Spent by 2028	Investment Lost	Add'l Spent due to later start	Spent + Lost by 2028	Content Lost	\$ Spent + Lost Cumulative Difference	Content Lost Cumulative Difference	% More \$ Spent + Lost	% More Content Lost
2014	\$473,012	\$1,136,391	\$7,758,559	\$0	\$0	\$7,758,559	0	\$0	0	100.00%	0.00%
2015	\$559,699	\$953,798	\$8,229,885	\$21,787	\$471,326	\$8,251,672	165	\$493,113	165	106.36%	0.33%
2016	\$664,271	\$797,830	\$8,769,082	\$52,563	\$1,010,523	\$8,821,645	398	\$1,063,086	398	113.70%	0.80%
2017	\$791,080	\$664,418	\$9,366,298	\$96,038	\$1,607,739	\$9,462,336	728	\$1,703,777	728	121.96%	1.46%

Key Findings

Investment saved per \$1 of expense

\$0.74

Return

73.75%

Investment Lost

\$0

Content Lost

0

[Export to CSV](#)



Year	Media	Content Saved	Excess Items Digitized	Investment Made	Content Lost	Investment Lost	Investment Saved	Digitization Expense	Storage Expense	Digitization + Storage Expense	Investment Saved per \$1 of expense	Quality of Selection
2014	50,000	7,917	7,747	\$4,500,000	0	\$3,787,500	\$712,500	\$475,000	\$113,993	\$588,993	\$1.21	100.00%
2015	49,831	14,741	6,583	\$4,650,000	0	\$3,279,052	\$1,370,948	\$950,000	\$294,417	\$1,244,417	\$1.10	99.66%
2016	49,589	20,625	5,540	\$4,800,000	0	\$2,820,024	\$1,979,976	\$1,425,000	\$508,984	\$1,933,984	\$1.02	99.18%
2017	49,246	25,697	4,583	\$4,950,000	0	\$2,406,034	\$2,543,966	\$1,900,000	\$736,216	\$2,636,216	\$0.97	98.49%
2018	48,756	30,069	3,676	\$5,100,000	0	\$2,032,969	\$3,067,031	\$2,375,000	\$962,228	\$3,337,228	\$0.92	97.51%
2019	48,060	33,838	2,778	\$5,250,000	0	\$1,696,993	\$3,553,007	\$2,850,000	\$1,178,419	\$4,028,419	\$0.88	96.12%
2020	47,068	37,087	1,838	\$5,400,000	0	\$1,394,551	\$4,005,449	\$3,325,000	\$1,379,828	\$4,704,828	\$0.85	94.14%
2021	45,657	39,889	791	\$5,550,000	0	\$1,122,361	\$4,427,639	\$3,800,000	\$1,563,955	\$5,363,955	\$0.83	91.31%
2022	43,647	42,303	0	\$5,700,000	0	\$877,409	\$4,822,591	\$4,275,000	\$1,729,938	\$6,004,938	\$0.80	87.29%
2023	40,785	44,385	0	\$5,850,000	0	\$656,939	\$5,193,061	\$4,750,000	\$1,877,967	\$6,627,967	\$0.78	81.57%
2024	36,711	46,180	0	\$6,000,000	0	\$458,434	\$5,541,566	\$5,225,000	\$2,008,878	\$7,233,878	\$0.77	73.42%
2025	30,910	47,727	0	\$6,150,000	0	\$279,608	\$5,870,392	\$5,700,000	\$2,123,880	\$7,823,880	\$0.75	61.82%
2026	22,651	49,060	0	\$6,300,000	0	\$118,386	\$6,181,614	\$6,175,000	\$2,224,364	\$8,399,364	\$0.74	45.30%
2027	10,892	50,000	0	\$6,450,000	0	\$0	\$6,450,000	\$6,563,180	\$2,311,411	\$8,874,591	\$0.73	21.78%
2028	0	50,000	0	\$6,600,000	0	\$0	\$6,600,000	\$6,563,180	\$2,385,401	\$8,948,581	\$0.74	0.00%

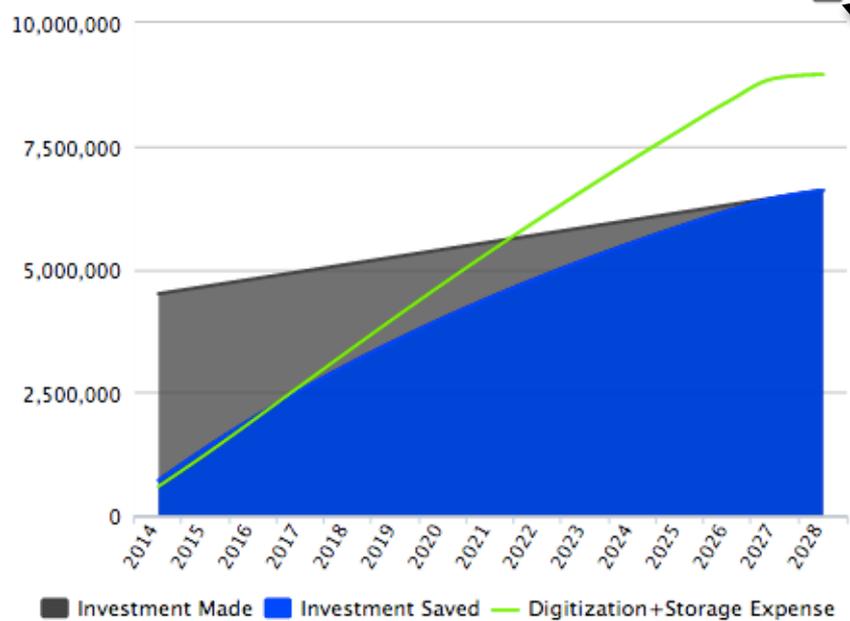


Enter your collection details

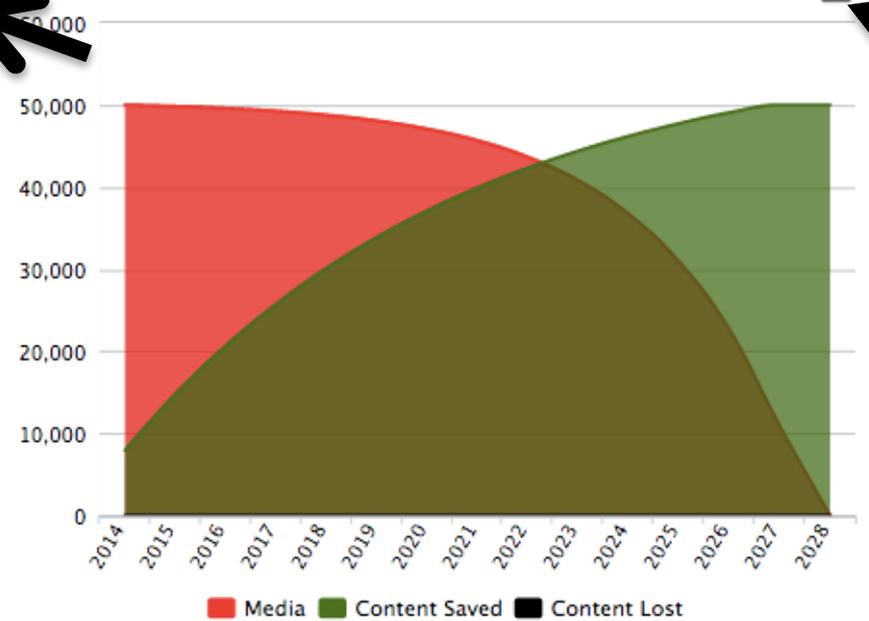


Last year for magnetic media? <input type="text" value="2028"/> <small>2015 2050</small>	Number of objects in collection? <input type="text" value="50,000"/> <small>1 10,000,000</small>	Collection's audio-video percentage? <div style="display: flex; justify-content: space-between;"> 50% Video 50% Audio </div>	Investment to date for media? <input type="text" value="\$4,500,000"/> <small>\$1 \$100,000,000</small>	Annual cost per media item moving forward? <input type="text" value="\$3"/> <small>\$0.01 \$20</small>	Digitization cost per <input type="text" value="\$60"/> <small>\$0.01 \$10000</small>
Year you will start digitizing items? <input type="text" value="2014"/> <small>2014 2028</small>	Annual digitization <input type="text" value="\$475,000"/> <small>\$1 \$50,000,000</small>	Storage service? <input type="text" value="Amazon"/>	Annual decrease in cost of storage? <input type="text" value="15%"/> <small>0% 100%</small>	Annual increase in cost of digitization? <input type="text" value="16%"/> <small>0% 100%</small>	

Investment Analysis



Item and Accessibility Analysis



Key Findings

Investment saved per \$1 of expense

\$0.74

Return

73.75%

Investment Lost

\$0

Content Lost

0



[Export to CSV](#)

Year	Media	Content Saved	Excess Items Digitized	Investment Made	Content Lost	Investment Lost	Investment Saved	Digitization Expense	Storage Expense	Digitization + Storage Expense	Investment Saved per \$1 of expense	Quality of Selection
2014	50,000	7,917	7,747	\$4,500,000	0	\$3,787,500	\$712,500	\$475,000	\$113,993	\$588,993	\$1.21	100.00%
2015	49,831	14,741	6,583	\$4,650,000	0	\$3,279,052	\$1,370,948	\$950,000	\$294,417	\$1,244,417	\$1.10	99.66%
2016	49,589	20,625	5,540	\$4,800,000	0	\$2,820,024	\$1,979,976	\$1,425,000	\$508,984	\$1,933,984	\$1.02	99.18%
2017	49,246	25,697	4,583	\$4,950,000	0	\$2,406,034	\$2,543,966	\$1,900,000	\$736,216	\$2,636,216	\$0.97	98.49%
2018	48,756	30,069	3,676	\$5,100,000	0	\$2,032,969	\$3,067,031	\$2,375,000	\$962,228	\$3,337,228	\$0.92	97.51%
2019	48,060	33,838	2,778	\$5,250,000	0	\$1,696,993	\$3,553,007	\$2,850,000	\$1,178,419	\$4,028,419	\$0.88	96.12%
2020	47,068	37,087	1,838	\$5,400,000	0	\$1,394,551	\$4,005,449	\$3,325,000	\$1,379,828	\$4,704,828	\$0.85	94.14%
2021	45,657	39,889	791	\$5,550,000	0	\$1,122,361	\$4,427,639	\$3,800,000	\$1,563,955	\$5,363,955	\$0.83	91.31%
2022	43,647	42,303	0	\$5,700,000	0	\$877,409	\$4,822,591	\$4,275,000	\$1,729,938	\$6,004,938	\$0.80	87.29%
2023	40,785	44,385	0	\$5,850,000	0	\$656,939	\$5,193,061	\$4,750,000	\$1,877,967	\$6,627,967	\$0.78	81.57%
2024	36,711	46,180	0	\$6,000,000	0	\$458,434	\$5,541,566	\$5,225,000	\$2,008,878	\$7,233,878	\$0.77	73.42%
2025	30,910	47,727	0	\$6,150,000	0	\$279,608	\$5,870,392	\$5,700,000	\$2,123,880	\$7,823,880	\$0.75	61.82%
2026	22,651	49,060	0	\$6,300,000	0	\$118,386	\$6,181,614	\$6,175,000	\$2,224,364	\$8,399,364	\$0.74	45.30%
2027	10,892	50,000	0	\$6,450,000	0	\$0	\$6,450,000	\$6,563,180	\$2,311,411	\$8,874,591	\$0.73	21.78%
2028	0	50,000	0	\$6,600,000	0	\$0	\$6,600,000	\$6,563,180	\$2,385,401	\$8,948,581	\$0.74	0.00%

Enter your collection details

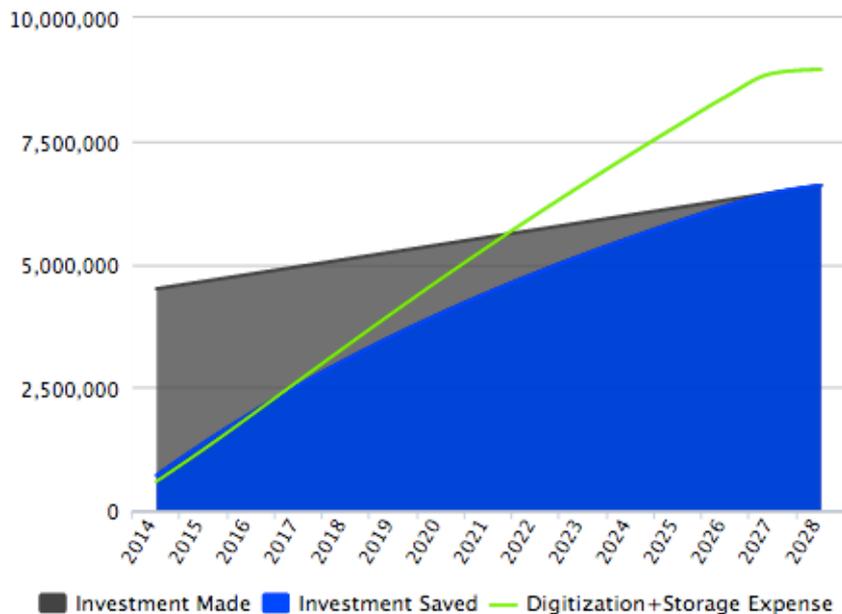
Save

Get Link

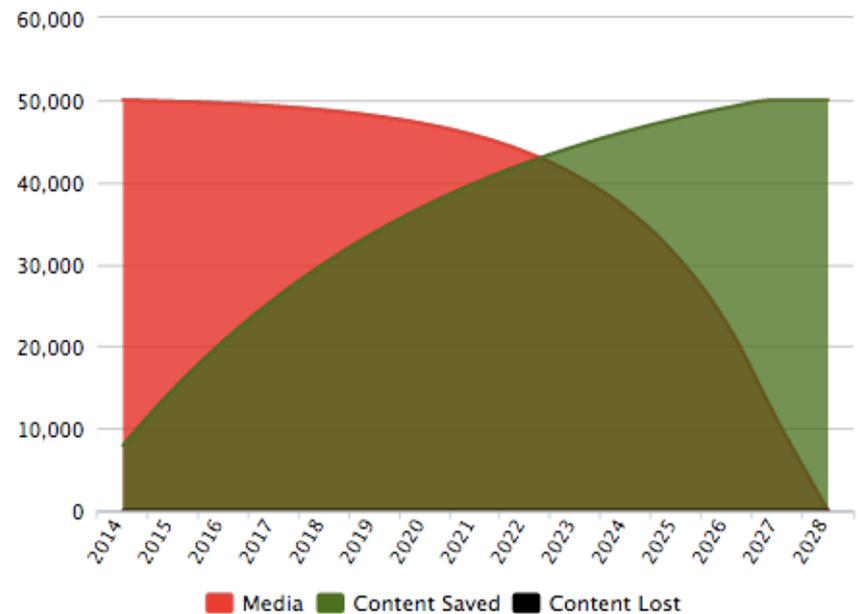


Last year for magnetic media? <input type="text" value="2028"/> <small>2015 2050</small>	Number of objects in collection? <input type="text" value="50,000"/> <small>1 10,000,000</small>	Collection's audio-video percentage? <div style="display: flex; justify-content: space-between;"> 50% Audio 50% Video </div>	Investment to date for media? <input type="text" value="\$4,500,000"/> <small>\$1 \$100,000,000</small>	Annual cost per media item moving forward? <input type="text" value="\$3"/> <small>\$0.01 \$20</small>	Digitization cost per <input type="text" value="\$60"/> <small>\$0.01 \$10000</small>
Year you will start digitizing items? <input type="text" value="2014"/> <small>2014 2028</small>	Annual digitization <input type="text" value="\$475,000"/> <small>\$1 \$50,000,000</small>	Storage service? <input type="text" value="Amazon"/>	Annual decrease in cost of storage? <input type="text" value="15%"/> <small>0% 100%</small>	Annual increase in cost of digitization? <input type="text" value="16%"/> <small>0% 100%</small>	

Investment Analysis



Item and Accessibility Analysis





Save

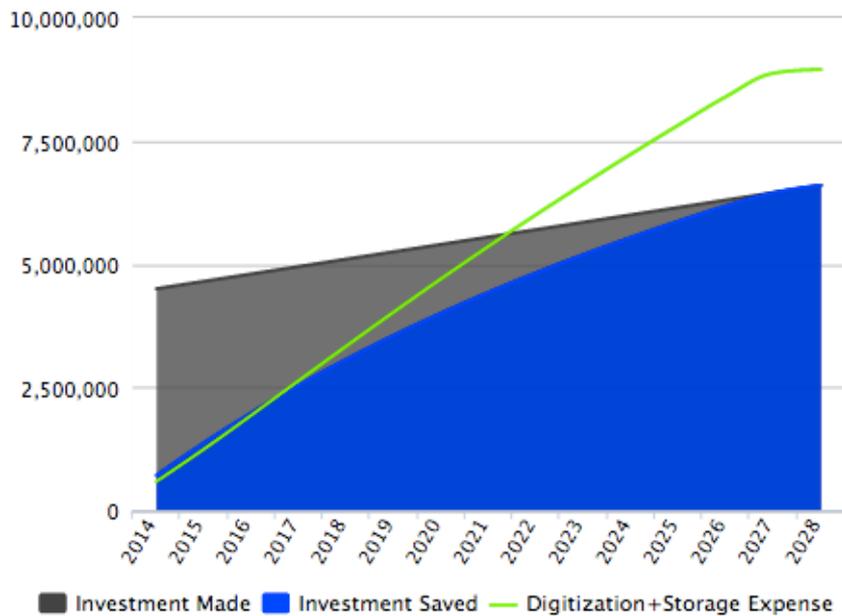
Get Link



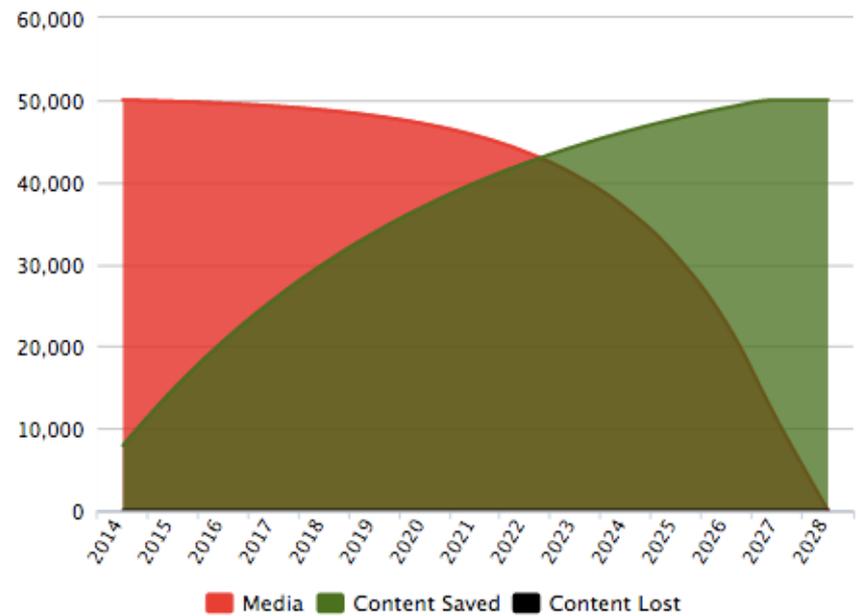
Enter your collection details

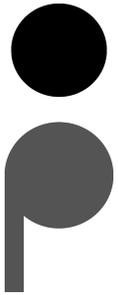
Last year for magnetic media? <input type="text" value="2028"/> <small>2015 2050</small>	Number of objects in collection? <input type="text" value="50,000"/> <small>1 10,000,000</small>	Collection's audio-video percentage? <div style="display: flex; justify-content: space-between;"> 50% Audio 50% Video </div>	Investment to date for media? <input type="text" value="\$4,500,000"/> <small>\$1 \$100,000,000</small>	Annual cost per media item moving forward? <input type="text" value="\$3"/> <small>\$0.01 \$20</small>	Digitization cost per <input type="text" value="\$60"/> <small>\$0.01 \$10000</small>
Year you will start digitizing items? <input type="text" value="2014"/> <small>2014 2028</small>	Annual digitization <input type="text" value="\$475,000"/> <small>\$1 \$50,000,000</small>	Storage service? <input type="text" value="Amazon"/>	Annual decrease in cost of storage? <input type="text" value="15%"/> <small>0% 100%</small>	Annual increase in cost of digitization? <input type="text" value="16%"/> <small>0% 100%</small>	

Investment Analysis



Item and Accessibility Analysis





THANK YOU
coi.avpreserve.com

Questions?  chris@avpreserve.com