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Preserving the Past, Embracing the Future

Curating the Vasulka Live Archive on the Remnants of Video Art

1 Jana Horáková, Štěpán Miklánek (Masaryk University), International Research Sessions / Digital Materiality and Artificial Intelligence,
May 13 and 14, 2024 (Milan, Italy).

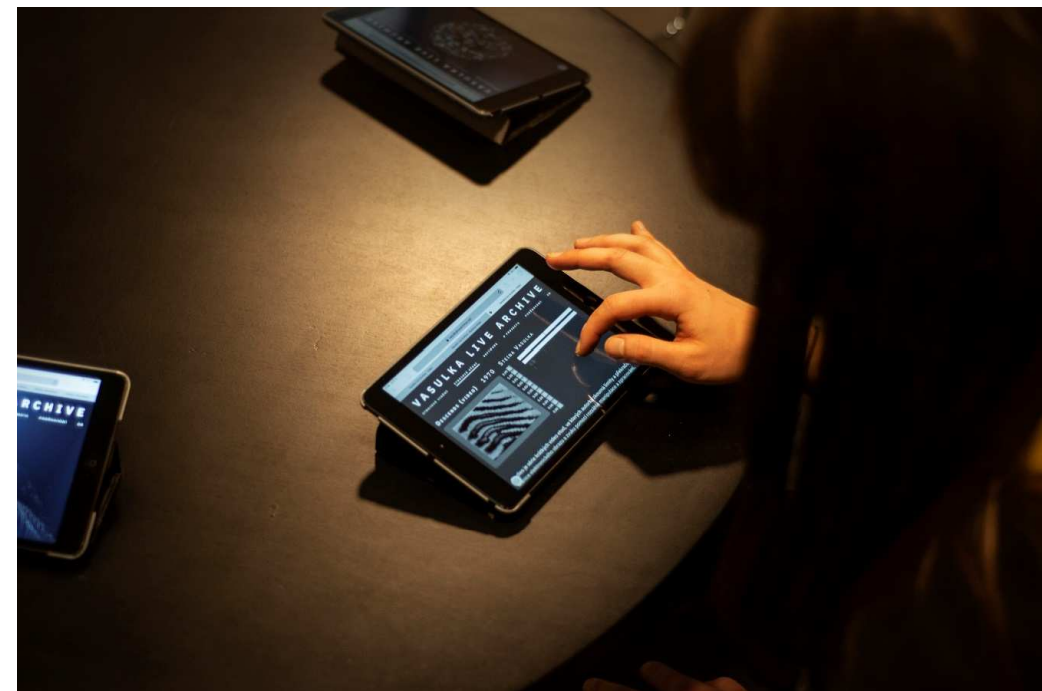
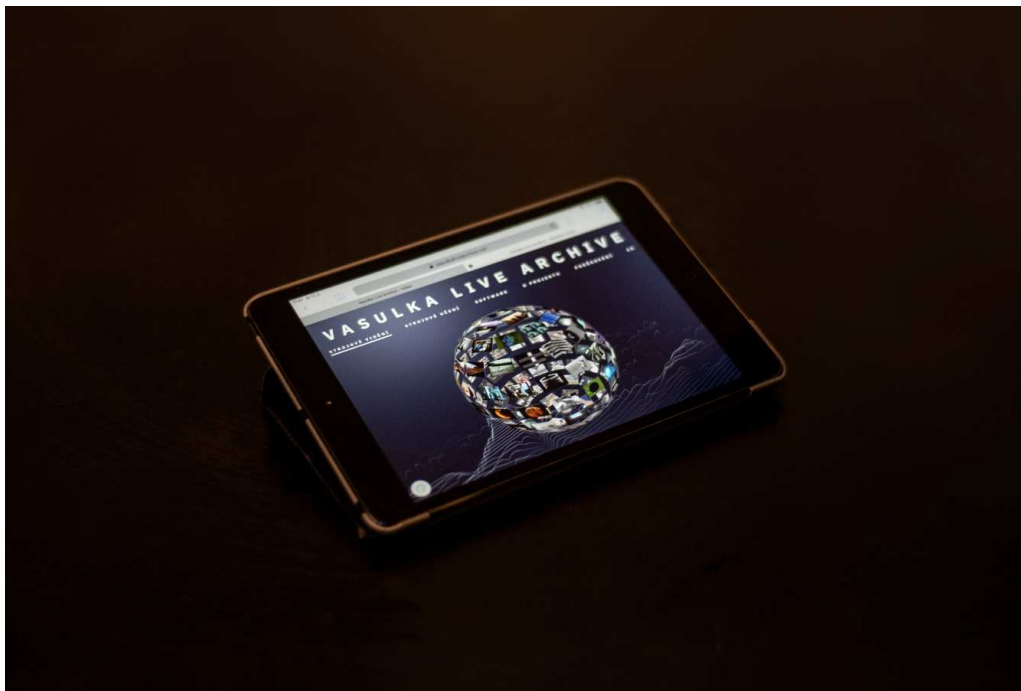
Media Art Live Archive

An Intelligent Interface for Interactive Mediation
of Cultural Heritage

(2019–2022)

Technology Agency of the Czech Republic

Curating the **Vasulka Live Archive** on the Remnants of Video Art **VasulkaLiveArchive.net**



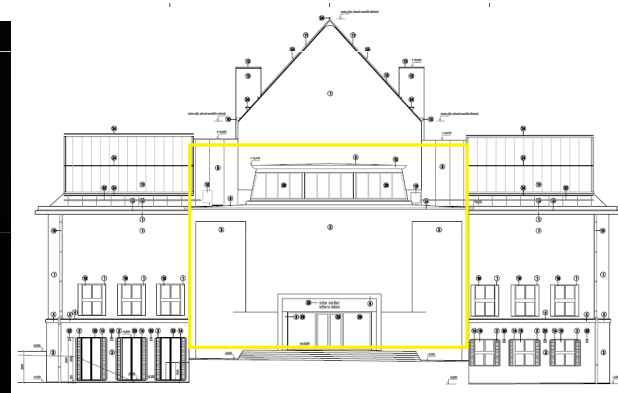
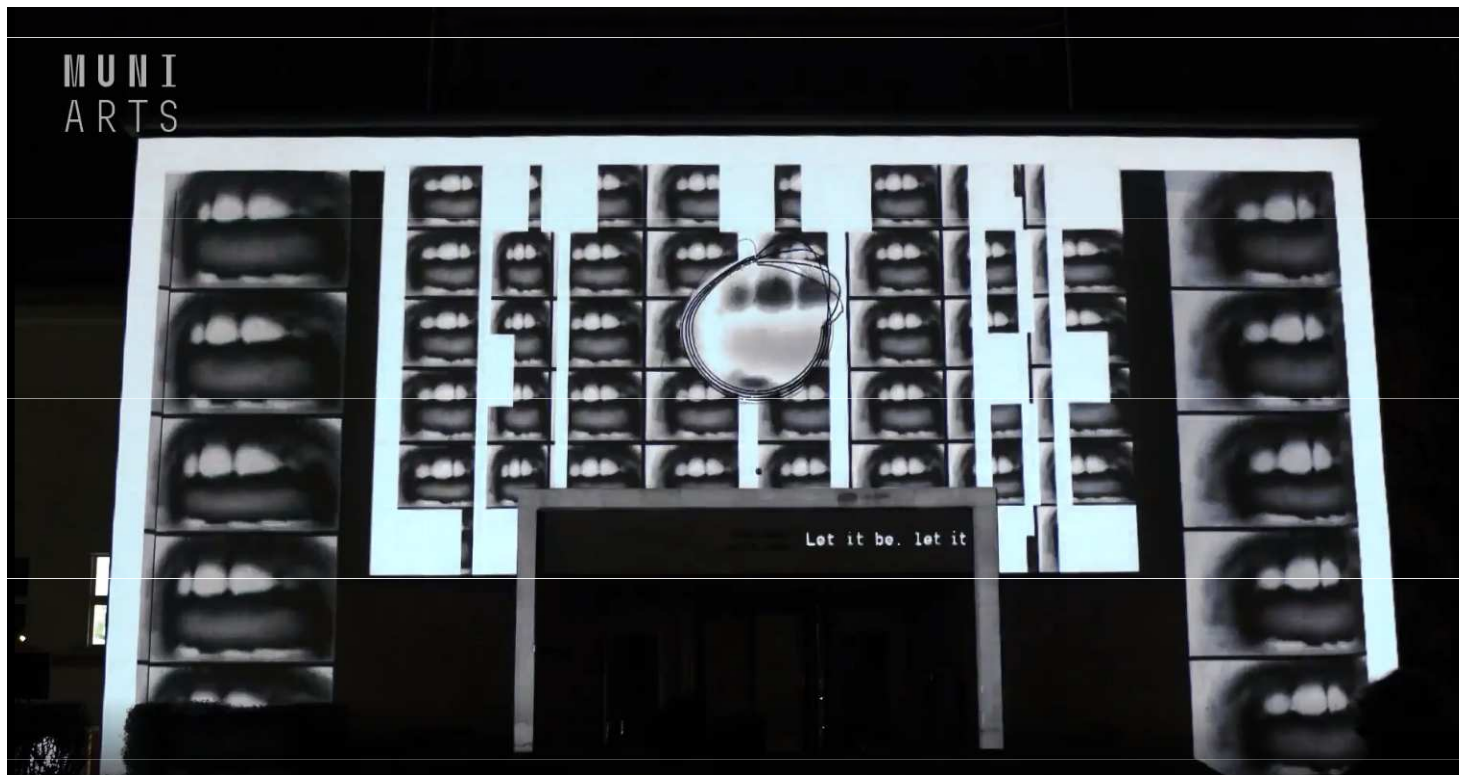
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Curating the **Vasulka Live Archive** on the Remnants of Video Art **Exhibition Vasulka Live Archive / Interfaces**



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Curating the **Vasulka Live Archive** on the Remnants of Video Art **Videomapping**

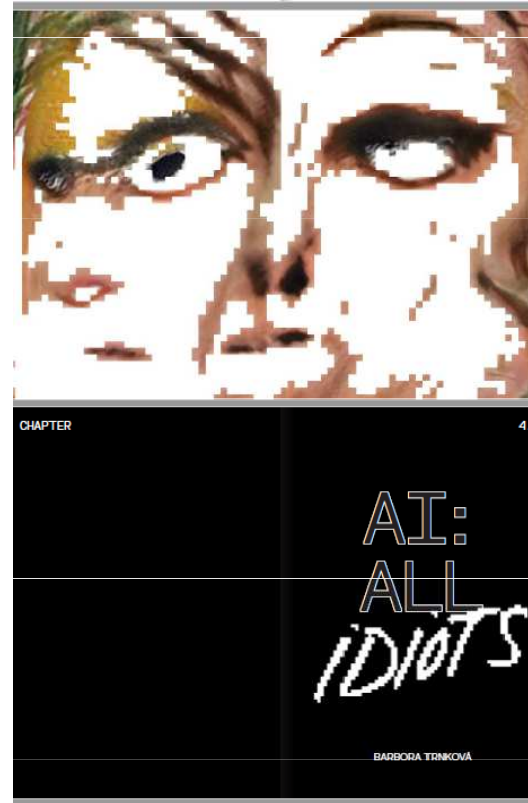
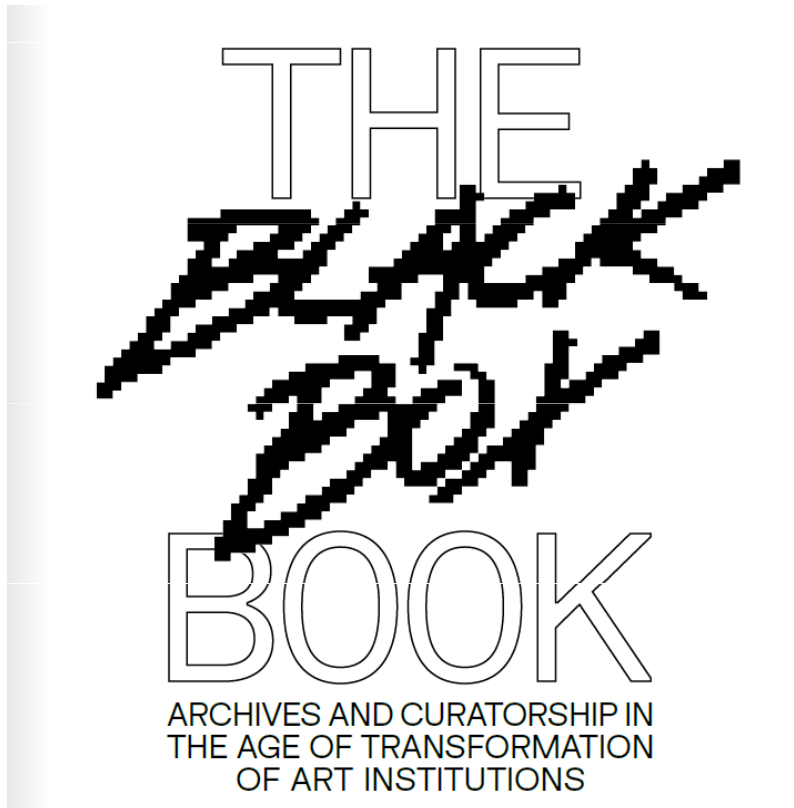


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The Black Box Book



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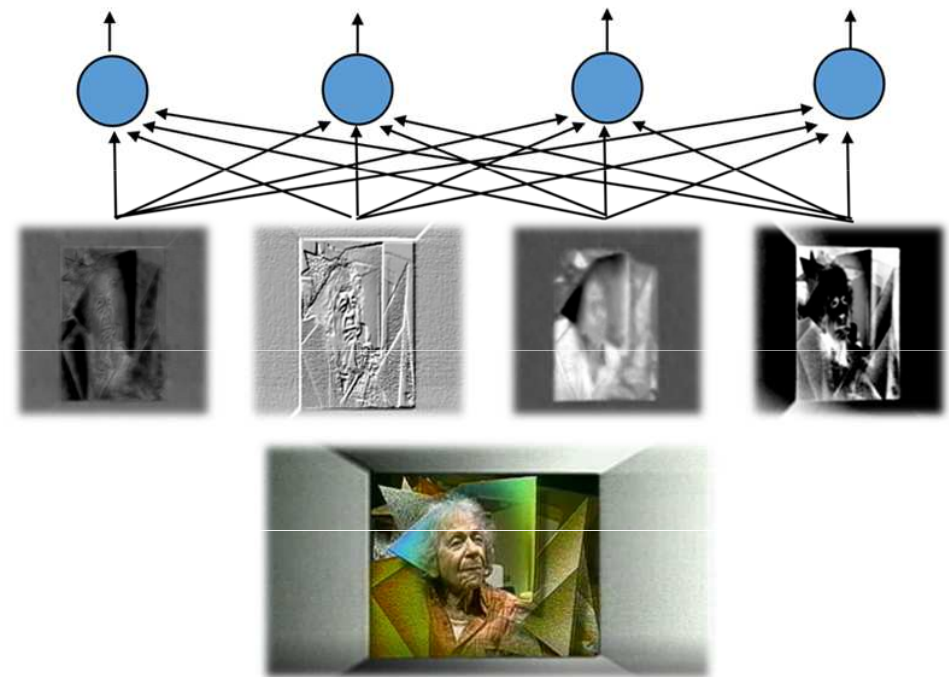
Curating the Vasulka Live Archive on the Remnants of Video Art

Key words of the presentation

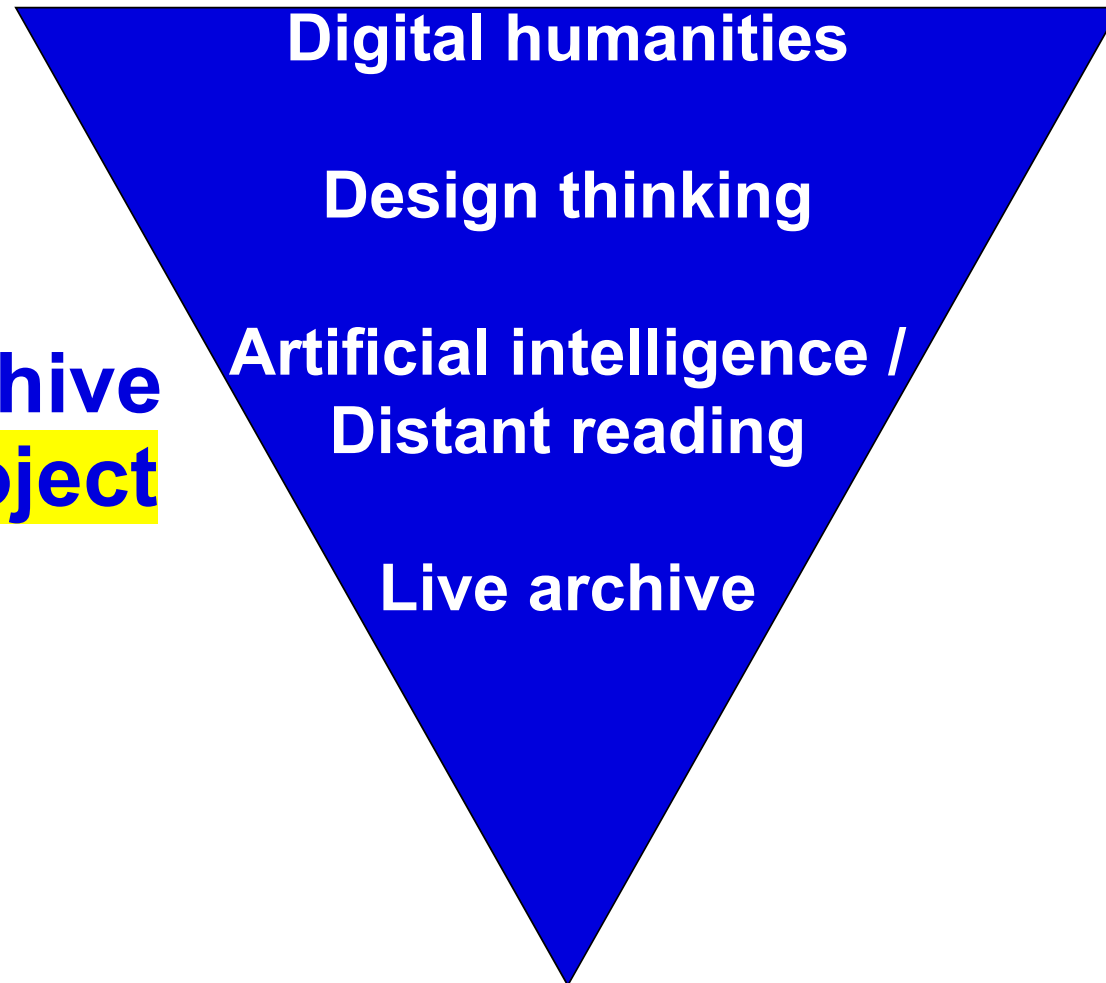
Live Archive

Curating

The remnants



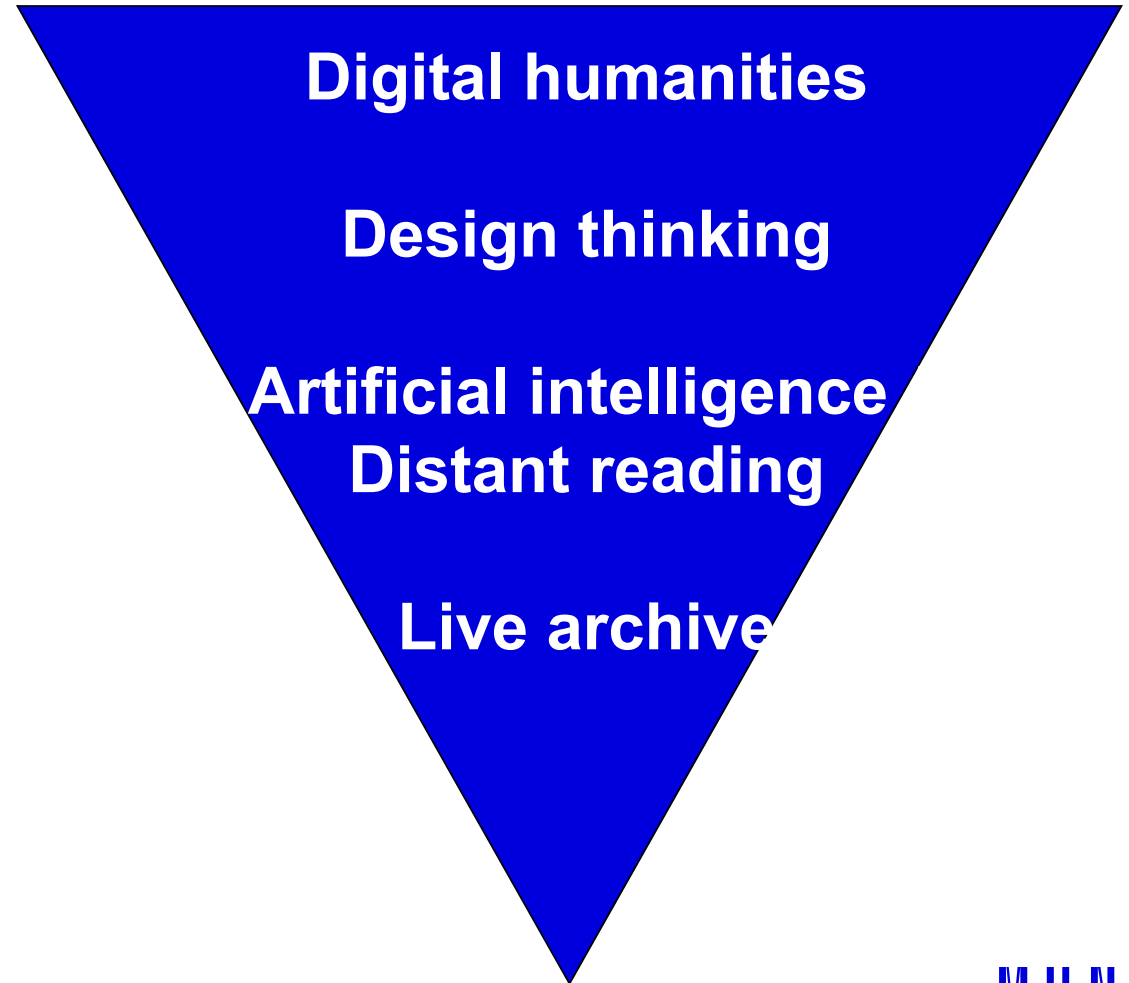
Vasulka Live Archive
Design of the project



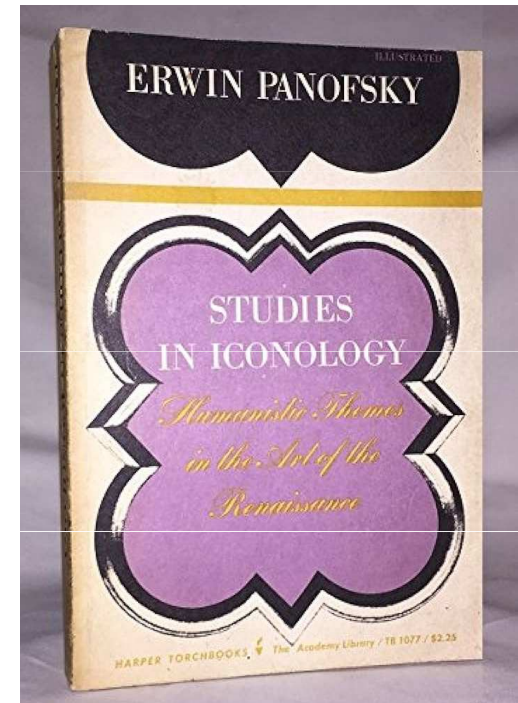
Design of the project

„... **Digital Humanities** both shapes and interprets [technological imaginary] ..., its engagement with **design as a method of thinking-through-practice** is indisputable. Digital Humanities is a production-based endeavor in which theoretical issues get tested in the design of implementations, and implementations are loci of theoretical reflection and elaboration. “

(Burdick, A. et al., 2012, p. 13)



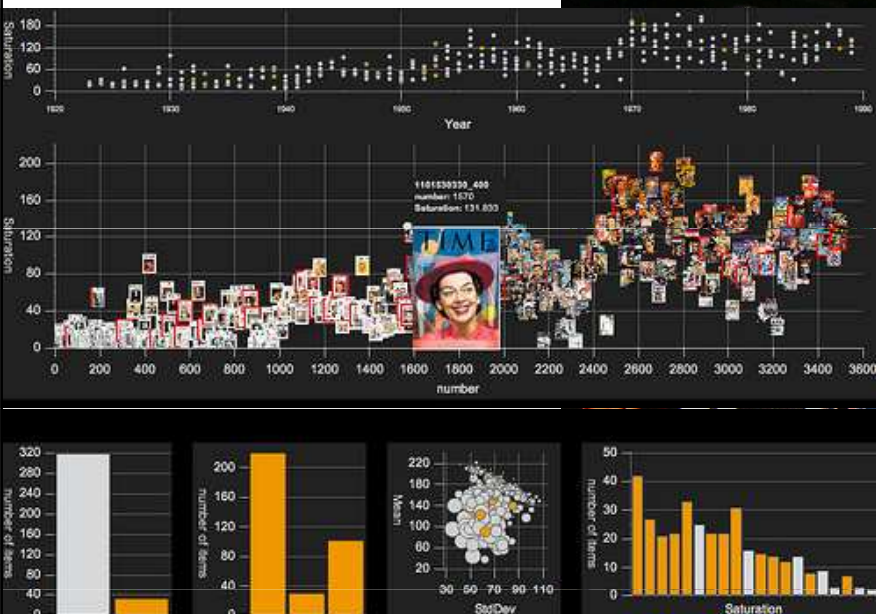
Digital archive and Artificial Intelligence / inspirations and influences



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Digital archive and Artificial Intelligence / inspirations and influences

<http://lab.culturalanalytics.info/2016/04/exploratory-visualizations-of-thomas.html>



Digital archive and Artificial Intelligence / inspirations and influences

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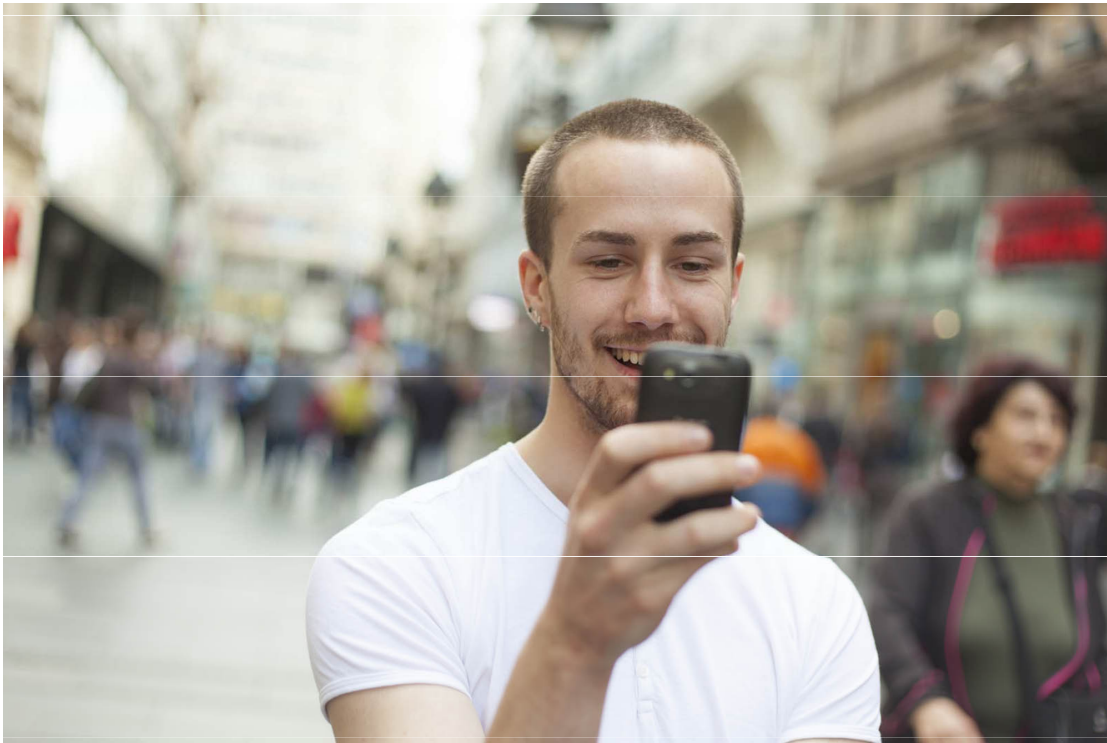


2 of 3840 selfies.



Digital archive and Artificial Intelligence / inspirations and influences

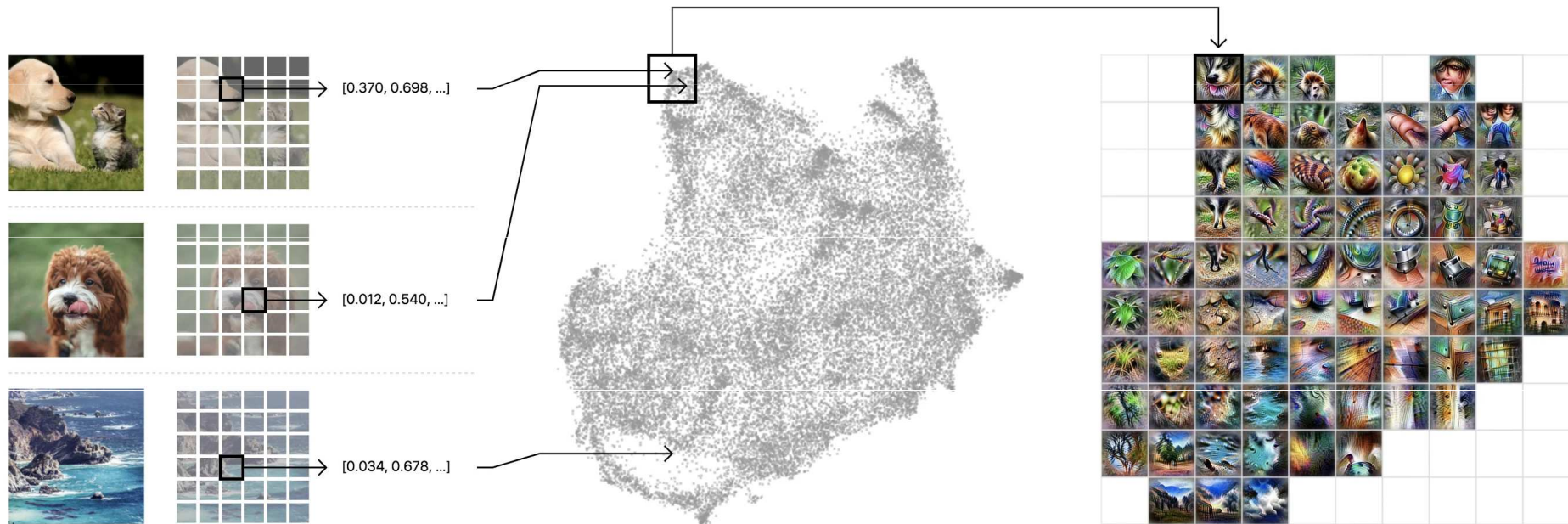
Digital archive and Artificial Intelligence / inspirations and influences



Digital archives and Artificial Intelligence / inspiration and influences

<https://distill.pub/2019/activation>

[-atlas/](#)



Design of the project

Graphic representation of the three pillars (research areas) that are integrated into the web-epistemological tool *VasulkaLiveArchive.net*.

Vasulkalivearchive.net

An interactive epistemological tool for an "augmented iconology" of artistic videos.

The work of the Vasulkas

Digital archive of the Vasulkas videos.

Theory of video art

Concepts introduced by Peter Weibel and Rosalind Krauss.
A study of the Vasulkas videos with a focus on recurring visual and sound motifs.

Artificial intelligence (machine learning)

Two CNNs for content analysis of the Vasulkas videos, one for audio and the other for visual signs analysis.

Curating the Vasulka Live Archive on the Remnants of Video Art

Key words of the presentation

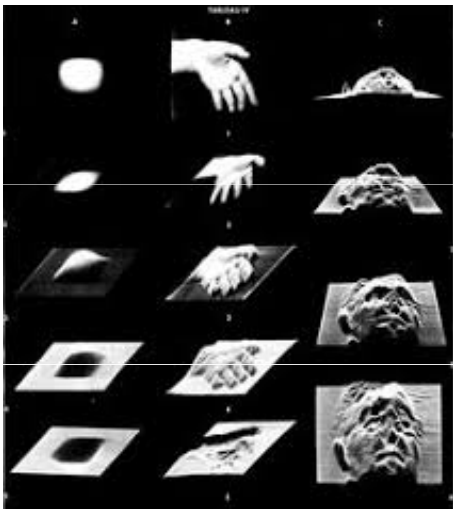
The Vasulkas



Curating the Vasulka Live Archive on the Remnants of Video Art

Key words of the presentation

Video art



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Key words of the presentation

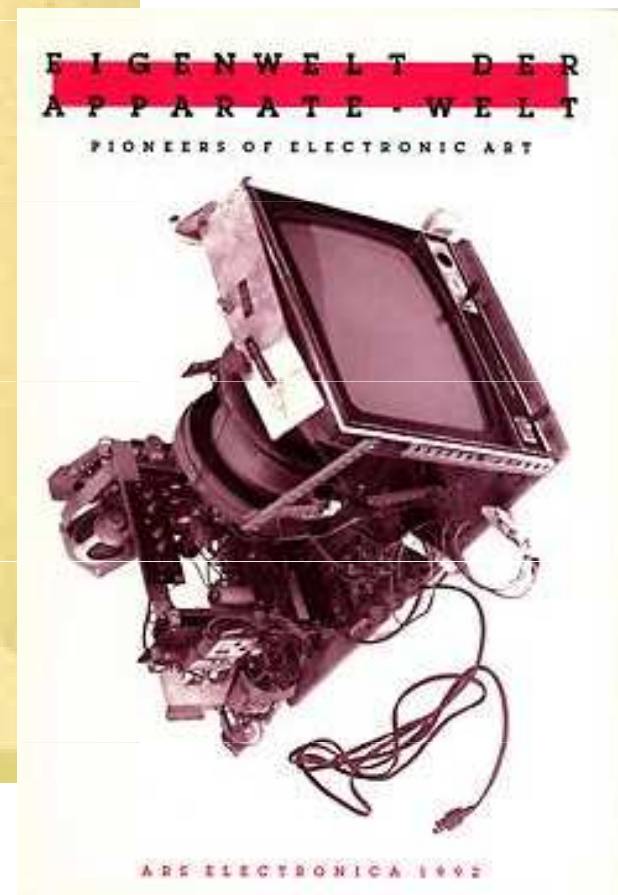
Video art

Video art is a form of artistic expression that utilizes video or moving images as its primary medium.

It encompasses various techniques such as recording, editing, and manipulating video footage to convey artistic concepts and ideas.



Digital archive and Artificial Intelligence / inspirations and influences



Artificial Intelligence at the Service of Video Art analysis

Four different applications of machine learning and AI in aesthetics (Manovich – Arielli, 2021, p. 12)

	Pattern recognition	Pattern generation
	(Analysis and description)	(Production and prediction)
Objects	Studying objects	Generating objects
Subjects	Studying subjects	Generating subjects

Basic processes the AI is doing (Hageback – Hedblom, 2022, p. 50)

Analyse and summarise

Generate
Imitate
Translate

(Moretti, 2000)

„**Distant reading**: where distance, ..., is a condition of knowledge: it allows you to focus on units that are much smaller or much larger than the text: devices, themes, tropes—or genres and systems.”

Pasquinelli – Joler, 2020

„[AI as] **an instrument of knowledge magnification** that helps to perceive features, patterns, and correlations through vast spaces of data beyond human reach.“

Curating the Vasulka Live Archive on the Remnants of Video Art

Video art poetics

Peter Weibel

1. Synthetics
2. Transformation
3. Self-reference
4. Instant time
5. Box

- *Video is an epistemological tool.*
- *Video Art as an act of cognition.*



Curating the Vasulka Live Archive on the Remnants of Video Art

Video art poetics

Rosalind Krauss

Video: The Aesthetics of Narcissism

“As we look at the artist sighting along his outstretched arm and forefinger towards the center of the screen we are watching, what we see is a sustained tautology: a line of sight that begins at Acconci's plane of vision and ends at the eyes of his projected double.”

“The medium of video art is the psychological condition of the self split and doubled by the mirror-reflection of synchronous feedback...”



VasulkaLiveArchive.net

How we proceeded?

Vasulka Live Archive: how we proceeded

Dataset

- ✓ Data set volume in general: 536 GB / 1,800 audio-visual works.
- ✓ 880 videos successfully converted to mp4 format.
- ✓ **Final data set: 137 GB data corpus / 6 days, 20 hours and 27:30 min. watch time.**

- ✓ List of the Vasulkas videos: 108 in total (21 by Woody Vasulka, 49 by Steina Vasulka, 38 by the Vasulkas).

- ✓ **VasulkaLiveArchive.net: 124 items represents 105 artistic works of the Vasulkas.**
- ✓ The archive contains video tapes, video documentation of art installations, documentary videos reporting on the Vasulkas work. Most of the video tapes are represented in a complete version, some are available only in fragments.

Vasulka Live Archive: how we proceeded

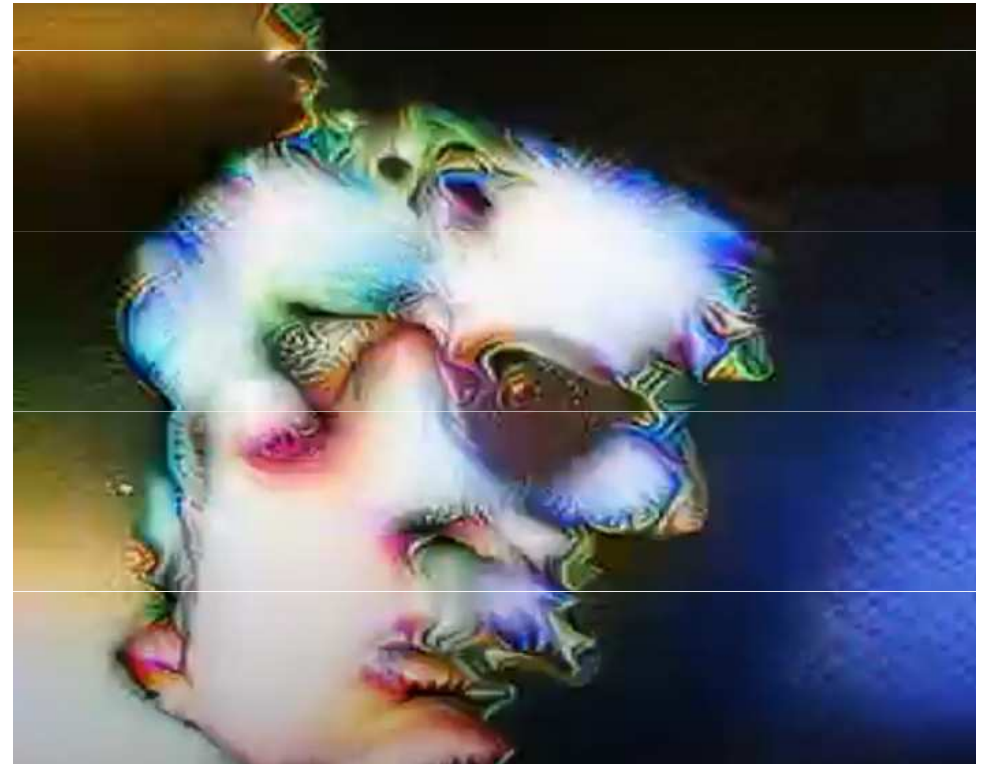
Metadata

Thematic cluster	Visual objects	Sound objects
Human	Body, Face, Hand, Steina, Woody	Speech, Singing
Interior / Exterior	Interior, Landscape	x
Natural elements	Air, Earth, Fire, Water	Air (Noise), Fire (Noise), Water (Noise)
Special Effects / Electrical Signal Manipulation	Rutt/Etra processor, Keying, Machine vision (fisheye effect), Effect	Noise
Machine and tool	Car, TV, Violin	Electronic music, Acoustic music, Playing the violin, Car (noise)
Symbols	Numbers, Letters, Lines	x

Vasulka Live Archive: how we proceeded

2 x Intelligent software

- ✓ Convolutional Neural Networks (CNNs) for content-oriented analysis of sound and visual data.
- ✓ Sikora, P. (2022). MediaArtLiveArchive – Video Tagging [Software].
- ✓ Miklanek, S. (2022). MediaArtLiveArchive – Audio Tagging [Software].
- ✓ github.com/vasulkalivearchive/audio
- ✓ github.com/vasulkalivearchive/video



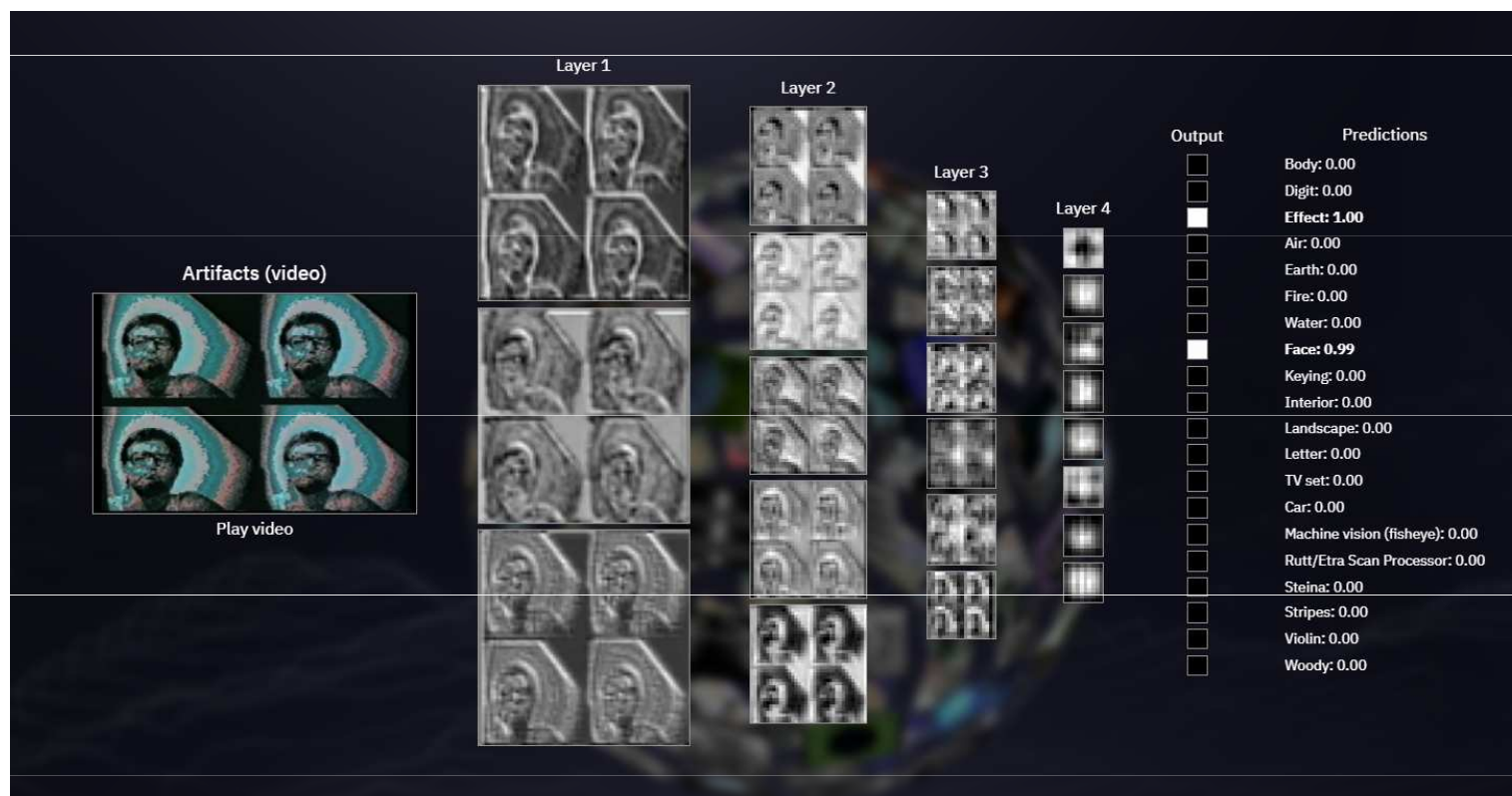
Vasulka Live Archive: how we proceeded

Web / Machine Vision (level 1) : <https://vasulkalivearchive.net> (Inspired by the Activation Atlas)



Vasulka Live Archive: how we proceeded

Web / Machine Vision (level 2) : <https://vasulkalivearchive.net> (Inspired by the Activation Atlas)



Vasulka Live Archive: how we proceeded

Web / Machine Learning (level 1): <https://vasulkalivearchive.net/Video>



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Vasulka Live Archive: how we proceeded

Web / Machine Learning (level 2): [https://vasulkalivearchive.net/Video/Play/Swan%20Lake%20\(video\)?searchText=swan%20lake](https://vasulkalivearchive.net/Video/Play/Swan%20Lake%20(video)?searchText=swan%20lake)

The screenshot displays the Vasulka Live Archive interface. On the left, a video player shows a black and white scene from the 1971 film 'Swan Lake' featuring a ballerina in a white tutu. The video title 'SWAN LAKE (VIDEO) 1971 WOODY VASULKA' is visible at the top of the player. The video progress bar indicates 1:41 / 7:25. On the right, a data visualization panel shows a vertical list of 20 rows, each with a numerical value and a percentage. The values range from 0.00 to 0.91, with percentages ranging from 0% to 100%. To the right of this list is a large, dark visualization area with white horizontal bars and vertical lines, representing a complex data structure or visualization related to the video content.

What can we learn about Vasulkas videos by using this intelligent epistemological tool?

What new can we learn about Vasulkas videos by using an intelligent epistemological tool?

Test 1: Abstraction scaling (inspired by Peter Weibel)

Visual signs

	1-100	25-100	50-100
Effect	108	40	22
Effect + Rutt/Etra	34	9	7

Acoustic signs

	1-100	25-100	50-100
Noise	112	61	38
Noise + Effect	99	54	33

Results:

The results of this test confirmed that it is necessary to teach the intelligent software for analysis of video art to quantify the degree of transformation (or the level of abstraction) of the image and/or sound (see P. Weibel, 5 attributes of video art). Moreover, it has proven that the study of the artistic videos cannot be reduced to the visual components, but their characteristic features must be searched for within acoustic components of the videos too.

What new can we learn about Vasulkas videos by using an intelligent epistemological tool?

Test 2: Measuring narcissism (inspired by Rosalind Krauss)

Visual signs

	1-100	25-100	50-100
Body	60	26	6
Body (Woody)	17	10	2
Body (Steina)	21	13	2
Face	50	25	11
Face (Woody)	16	4	1
Face (Steina)	21	11	4

Acoustic signs

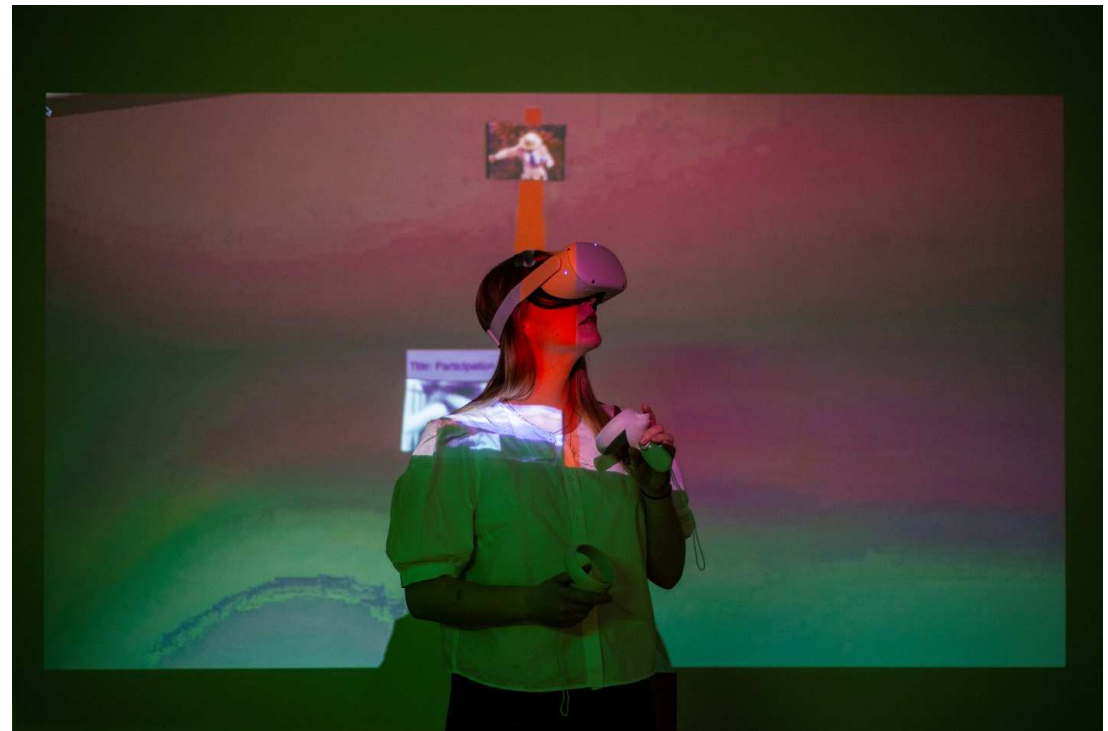
	1-100	25-100	50-100
Speech	50	22	16
Speech (Woody)	14	10	8
Speech (Steina)	19	3	1

Results:

The test showed that people (Bodies, Faces) are often represented in the Vasulkas videos, but not necessarily the authors themselves. Thus, it did not confirm that video serves as a mirror (narcissistic feedback loop) to artists, rather it showed that it is used as a tool for creating video portraits in general. In addition, the results raised the question of whether the concept of "narcissism" of videos should also extend to the audio aspects of these audiovisual works, as the acoustic representation of artists in videos occurs to a large extent.

Conclusion: **VasulkaLiveArchive.net** **the intelligent epistemological tool**

- The Vasulka Live Archive is an intelligent epistemological tool, which enables an exact examination of the intertextual structural and motivic relationships in the work of the Vasulkas.
- The results of applying machine learning to Vasulkas' videos showed that artificial intelligence (CNN), when properly trained for specific tasks, is not only useful for automated search and sorting of data set / archive, but it can also provide new data-driven insights into an aesthetics of video art.
- Emily L. Spratt named the method **„augmented iconology“**.



Thank you for your attention.

[VasulkaLiveArchive.net](https://vasulkalivearchive.net)

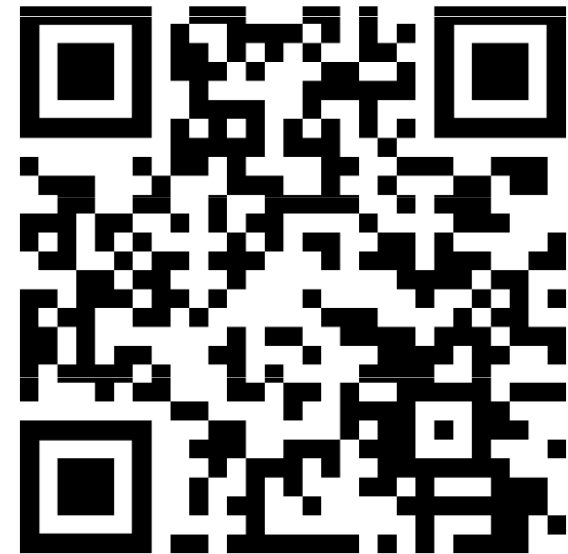
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VR Vasulka Live Archive

