

REPRESENTING ARTIFICIAL NEURAL NETWORKS IN ART

COGS 401 2024

SOL SKELTON

01 RESEARCH QUESTION

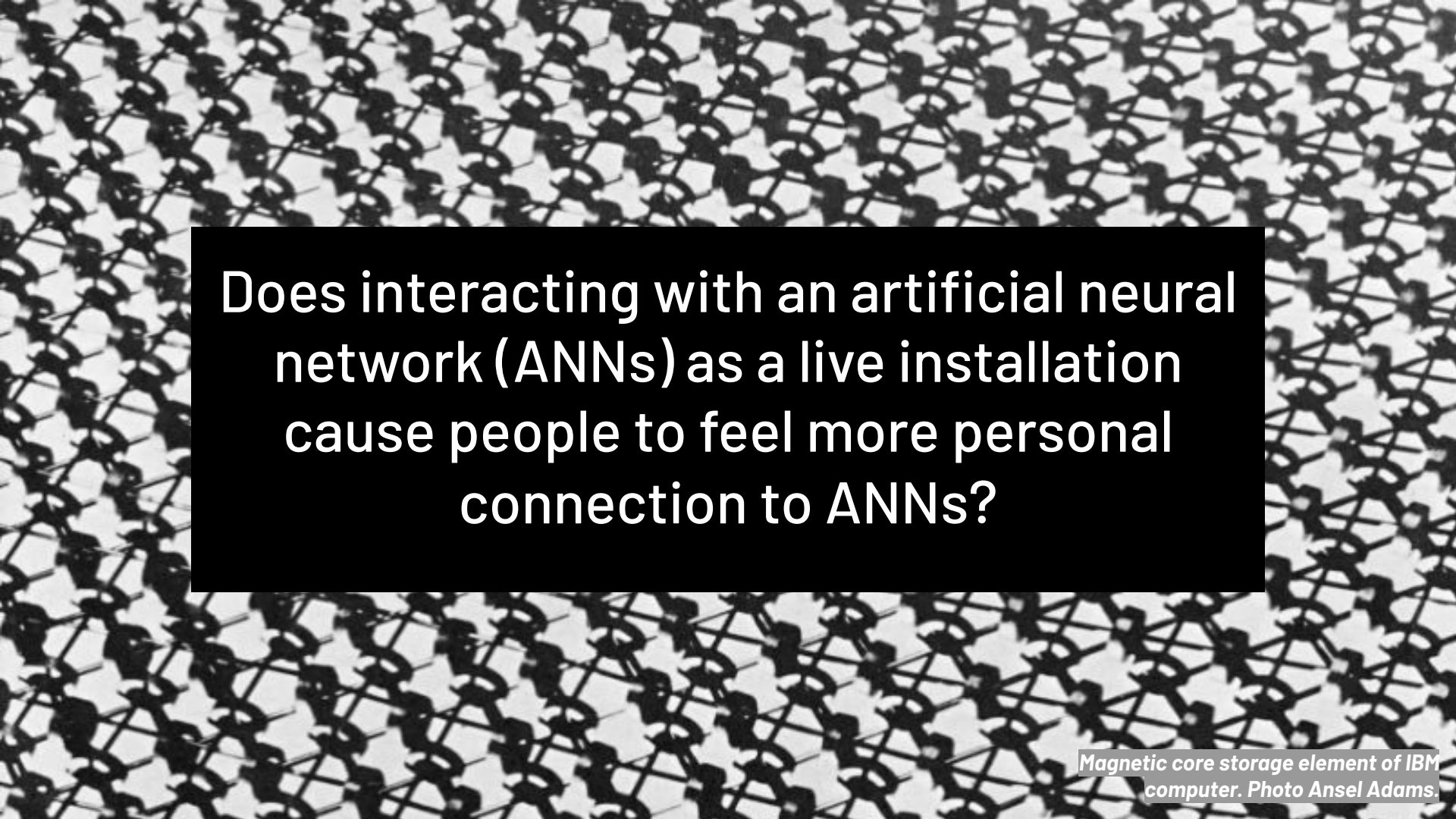
03 PEER FEEDBACK

02 METHODOLOGY

04 OUTCOME

01

Research Question



Does interacting with an artificial neural network (ANNs) as a live installation cause people to feel more personal connection to ANNs?

Magnetic core storage element of IBM computer. Photo Ansel Adams.

02

Methodology

Methodology

Interactive installation

Qualitative experience

Particle system whose movement behavior is generated by ANN

Real-time interactivity: training via participation

* Methodologies overlap & complement *

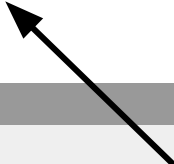
Paper

Investigation into the role of metaphor and abstraction in cognitive science

History of cybernetics & digital art | Contemporary art

Present context and reasoning for artwork

Deep learning network with
convolution and pooling layers



03

Peer Feedback

“Narrow your scope”

UNANIMOUS PEER FEEDBACK



Refik Anadol. *Unsupervised – Machine Hallucinations* – MoMA. 2022.

Examples of ANN & AI in art

04

Outcome

Response to Installation

Visuals

Continuously generating particle system: feeling of animacy, evolution

ANN

Particle responsiveness creates connection, may feel “conversational,” learning process visible in real-time

Installation

Life size - taking up space, presence creates greater emotional impact

Results

Greater interest in understanding ANNs
Visualization help inspire new ways of using, building networks - “feeling” of interaction and learning

"Artists, what we bring to the party is thousands...of years of thinking about what the hell an image is. The kind of engineering/computer science tradition does not have that. This is a place where artists are bringing voices to the conversation that I think are quite urgent."

Trevor Paglen

"How to See like a Machine"

<https://www.moma.org/magazine/articles/864>

THANK YOU

References

Education of Vision, Kepes

How We Became Posthuman, Hayles

"How to See Like A Machine," *How to See*, Museum of
Modern Art.

"Modeling Charisma: AI's Fashion Mirror Stage"

Nam June Paik

Postmasters 5.0 Gallery

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