

# ARTIFICIAL INTELLIGENCE & THE NEW CREATIVE PARADIGM.



# CREATIVITY

"Every block of stone has a statue inside it and it is the task of the sculptor to discover it".

**Michelangelo**

(1475 – 1564)





# WHAT IS CREATIVITY?



**VALUE**



**NOVELTY**



Source: Boden, M. A. (2007). Creativity in a nutshell. Think, 5(15), 83-96.

# 3 MODES OF CREATIVITY

## Combinational Creativity

Unfamiliar combinations of familiar ideas.

## Exploratory Creativity

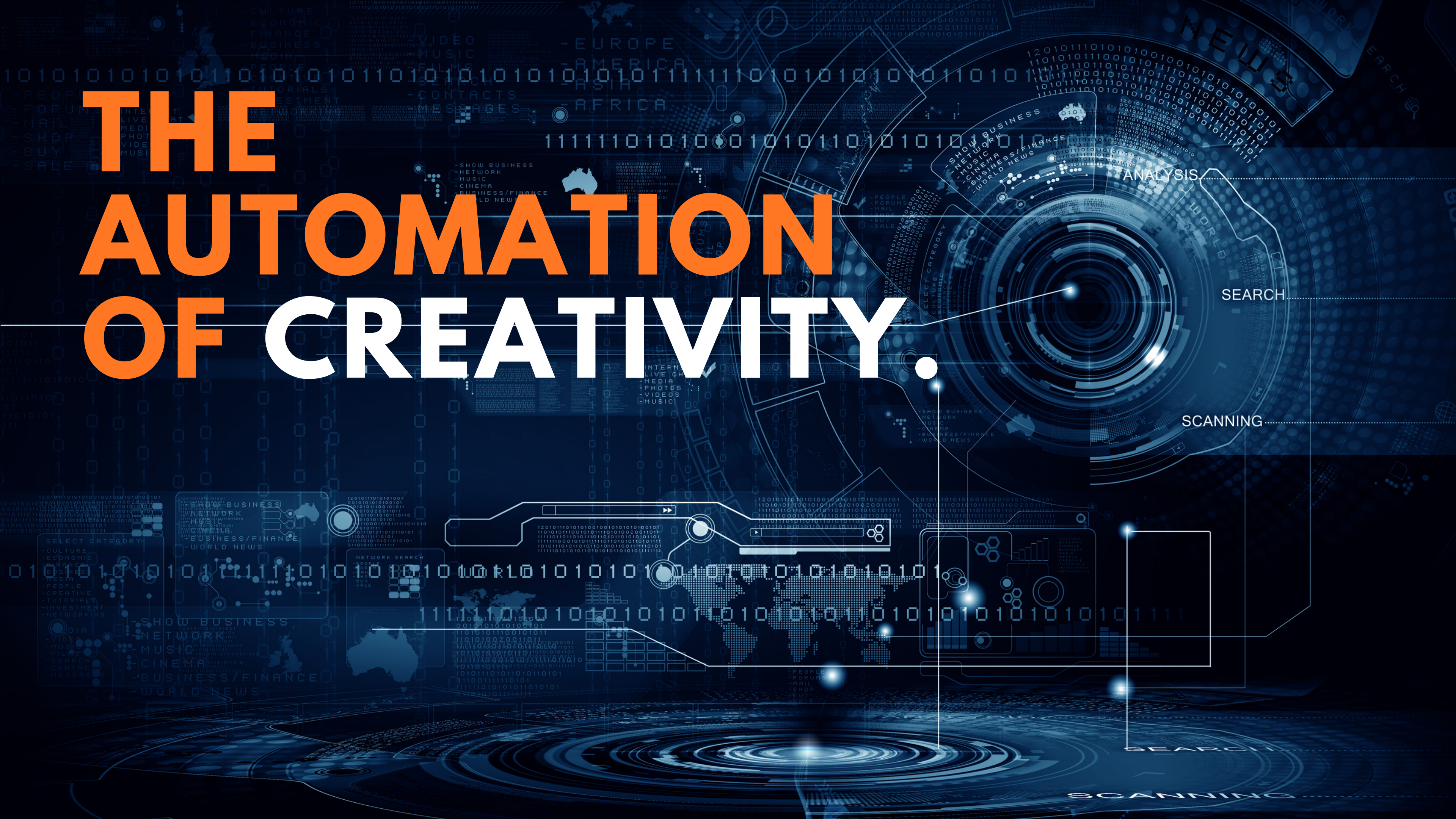
Generating new outcomes within existing boundaries or rules.

## Transformational Creativity

Breaking away from existing boundaries or rules to generate novel outcomes.

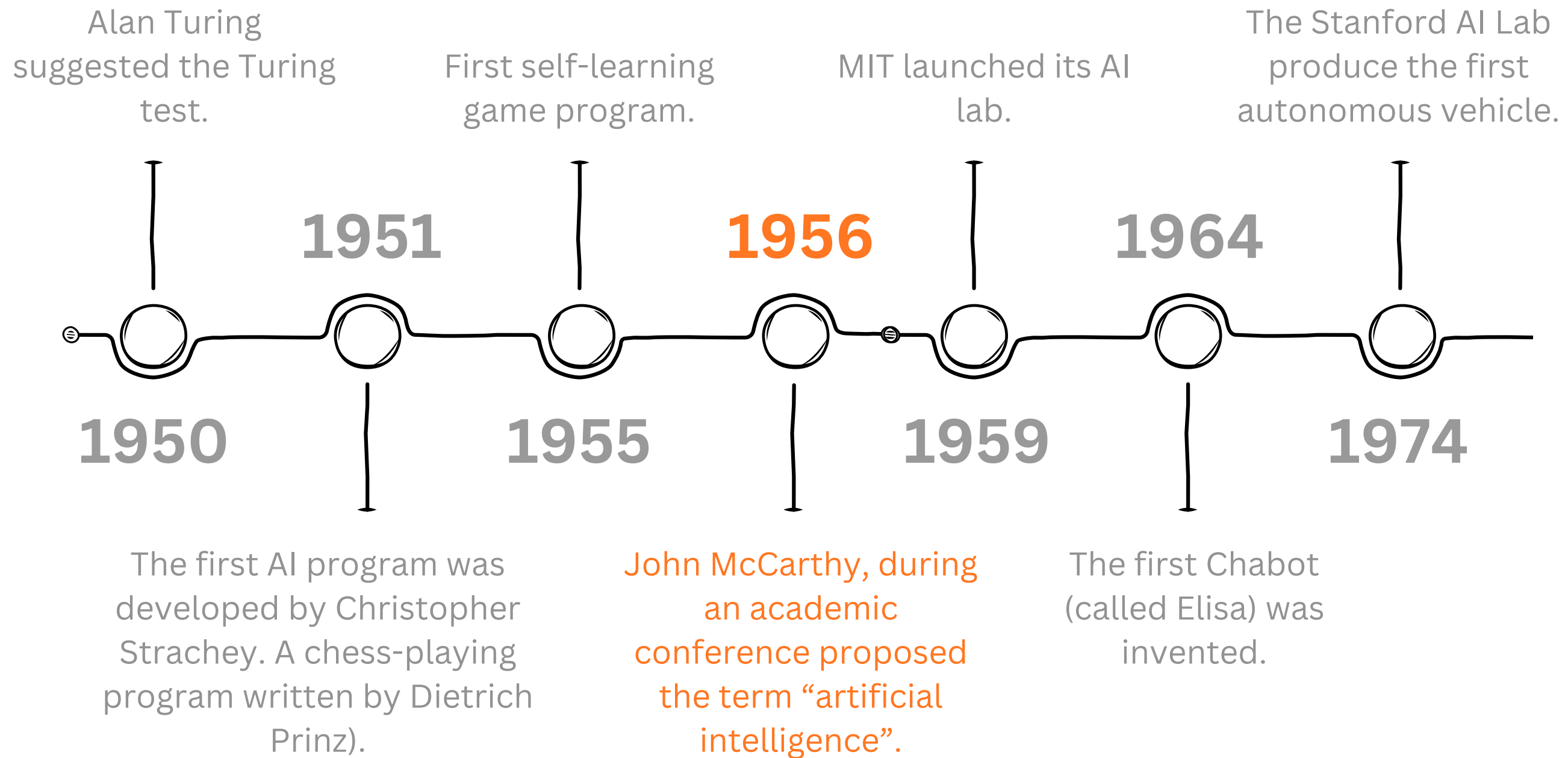


# THE AUTOMATION OF CREATIVITY.





# BRIEF TIMELINE OF AUTOMATION





# 1956

**HILLER AND  
ISAACSON  
COMPLETE THE  
ILLIAC SUITE**

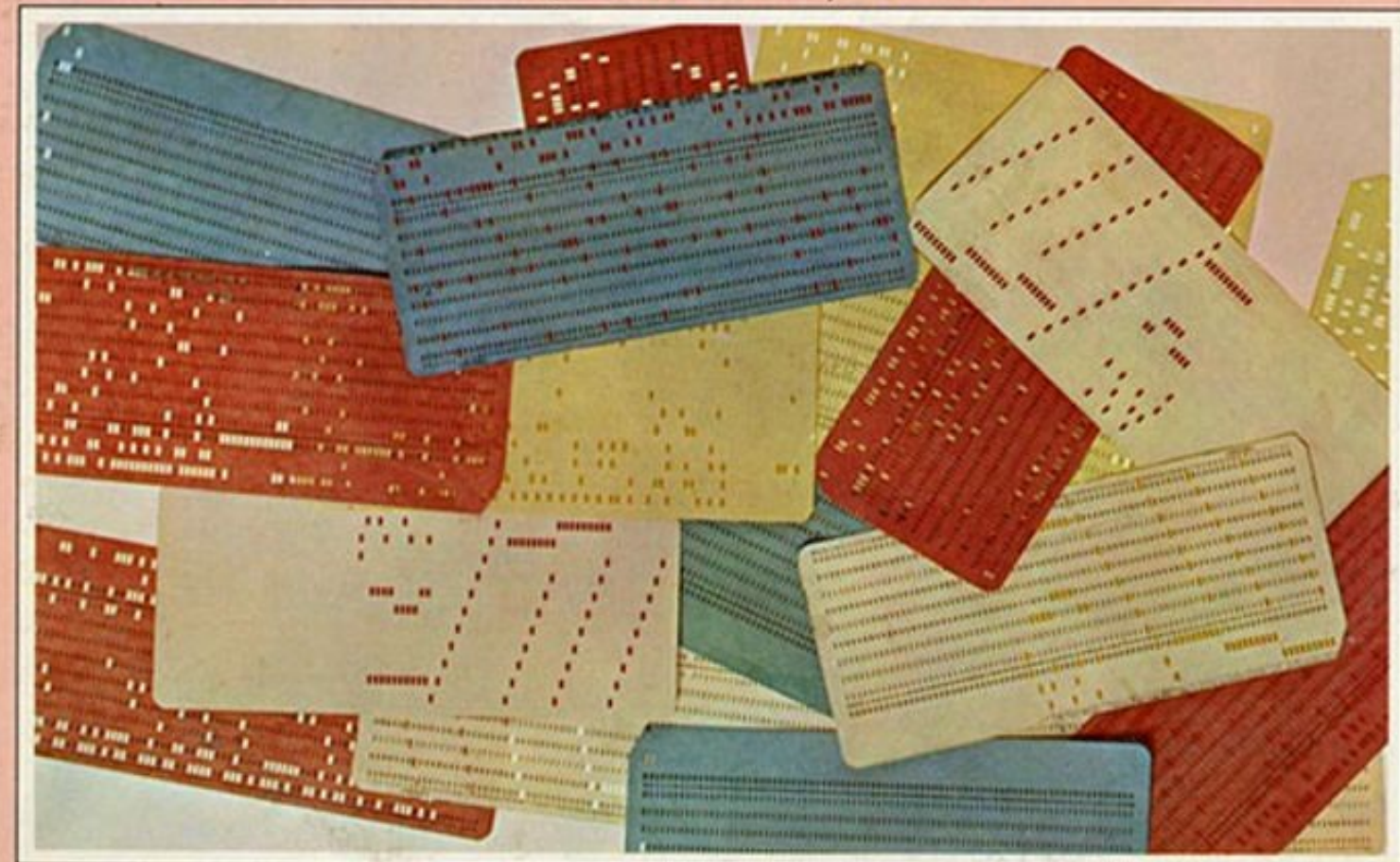
HS 25053

STEREO



## COMPUTER MUSIC

from the  
UNIVERSITY OF ILLINOIS  
Hiller/Isaacson/Baker

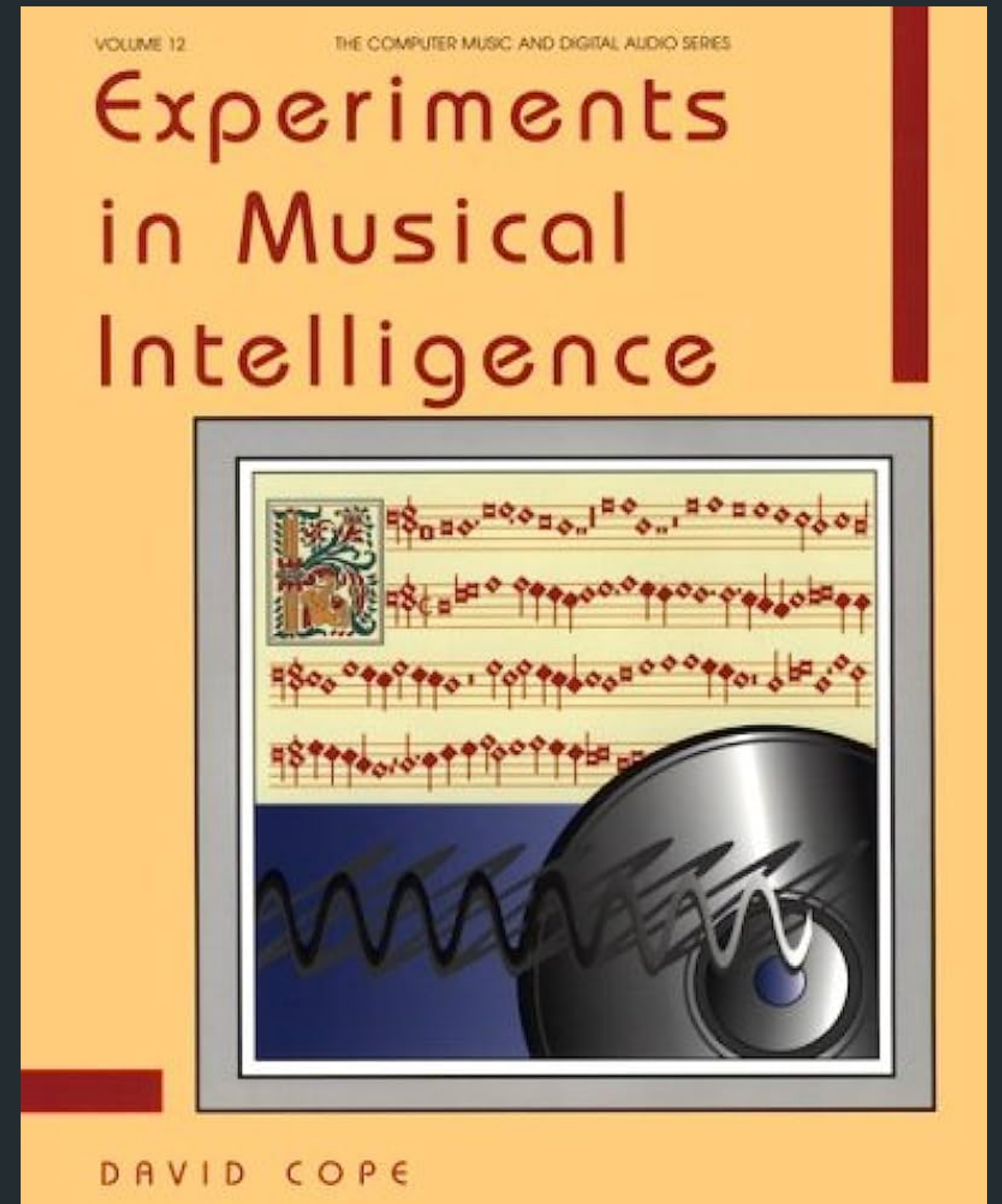


© 1956 Metro-Goldwyn-Mayer, Inc. Printed in U.S.A.



# 1989

## EXPERIMENTS IN MUSIC INTELLIGENCE BY PROF. DAVID COPE

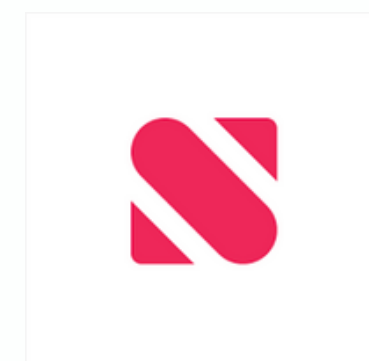
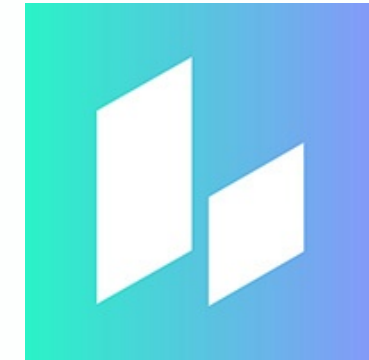




# 2013

VARIOUS  
MUSIC AI  
TOOLS ARE  
RELEASED  
ANNUALLY

## EXAMPLES



# 2018

## VARIOUS POP ARTISTS ADOPT AI TO COMPOSE

- Tyran Southern
- SKYGGE
- Holly Herndon
- YACHT





# 2023

THE BEATLES  
WILL RELEASE  
A TRACK  
USING AI



# ARTIFICIAL CO-CREATION

## COMPUTER

Tool

Assistant

Collaborator

Artist

Increasing degree of creative agency

Decreasing degree of control

Artist

Collaborator

Mentor

## HUMAN

McCormack, J., & d’Inverno, M. (2014, April). On the future of computers and creativity. In AISB 2014 Symposium on Computational Creativity, London.





**UNDERSTANDING  
THE ACCEPTANCE  
OF ARTIFICIAL  
CREATIVITY.**



# STUDY 1

How do  
listeners react  
to artificially  
composed  
music?



Tigre Moura, F., & Maw, C. (2021). Artificial intelligence became Beethoven: how do listeners and music professionals perceive artificially composed music?. Journal of Consumer Marketing, 38(2), 137-146.

# INSIGHTS



Rather **negative** attitude  
towards AI generating  
music.



Participants do not mind  
the use of AI for music  
generation, as long as  
they enjoy what they  
hear.



# STUDY 2

Value and creativity  
perceptions of different  
artistic product types.



Tigre Moura, F., Castrucci, C., Hindley, C. (2023). Artificial Intelligence Creates Art? An Experimental Investigation of Value and Creativity Perceptions. Journal of Creative Behavior.

# INSIGHTS



The type of product plays a significant role on the acceptance of AI in the production process



Emotional value was not affected by the use use of AI during the production process.

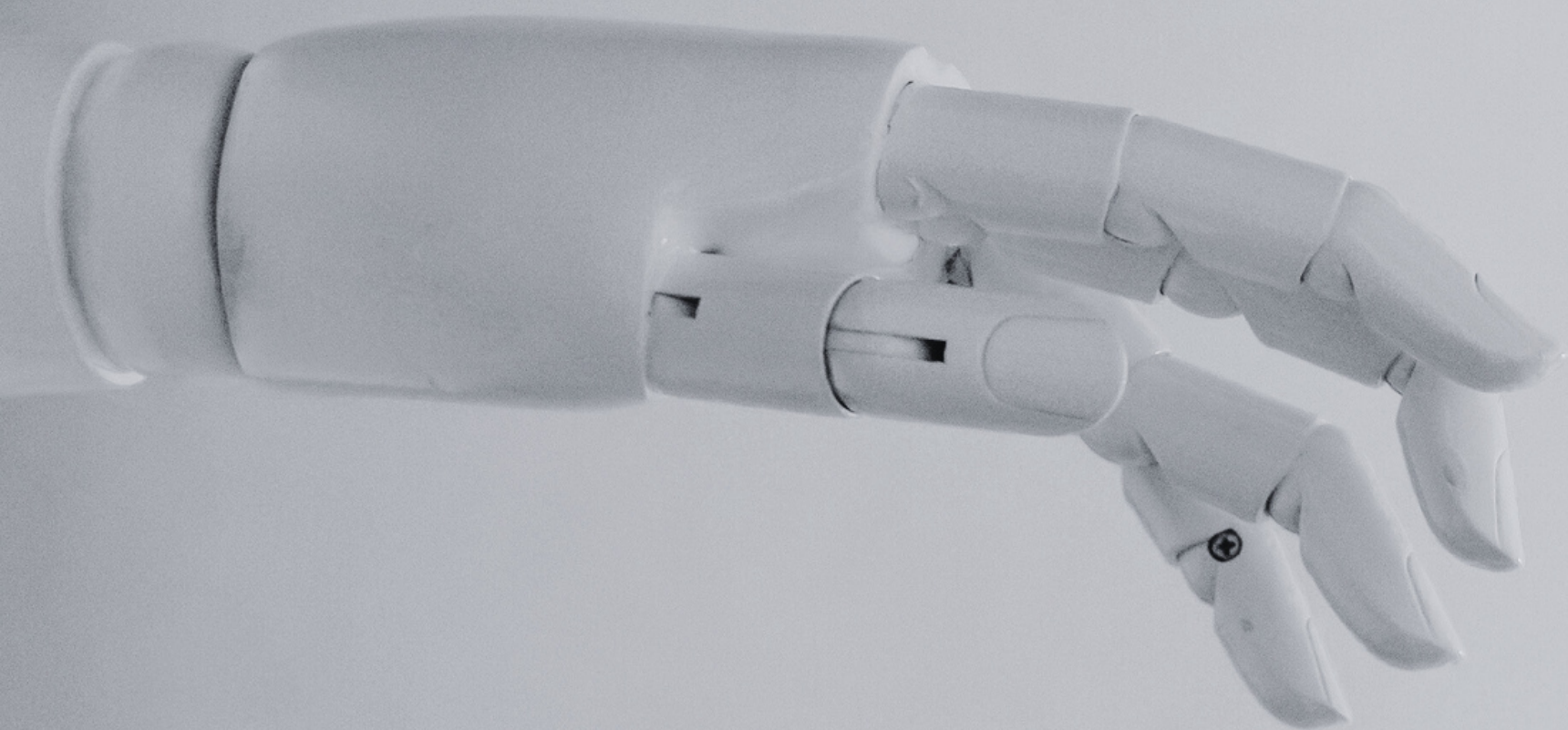


# STUDY 3

## IU KOMPASS PROJECT







**ADOPTION  
OF AI TOOLS  
WILL LEAD TO  
GREATER ACCEPTANCE.**



# CURRENT CREATIVE PARADIGM



Human intentionality



Human skill and expertise



Novelty








Value



Sternberg, R. J., & Karami, S. (2022). An 8P theoretical framework for understanding creativity and theories of creativity. *The Journal of Creative Behavior*, 56(1), 55-78.



# THE NEED FOR A PARADIGM SHIFT

- +  Understanding of creativity
- +  Human and AI co-creation
- +  The role of skill and expertise
- +  Creativity of non-creatives
- +  Intentionality of algorithms

Tigre Moura, F. (2023). Artificial Intelligence, Creativity, And Intentionality: The Need for A Paradigm Shift. Journal of Creative Behavior.





# THE FUTURE OF ARTIFICIAL CREATIVITY

FASCINATION & FEAR





# THANK YOU!

**iu** INTERNATIONAL  
UNIVERSITY OF  
APPLIED SCIENCES

**Prof. Dr. Francisco Tigre Moura**

[francisco.tigre-moura@iu.org](mailto:francisco.tigre-moura@iu.org)