

# AI 융합 메타버스 트렌드

이승환



Profile

## 강사 소개

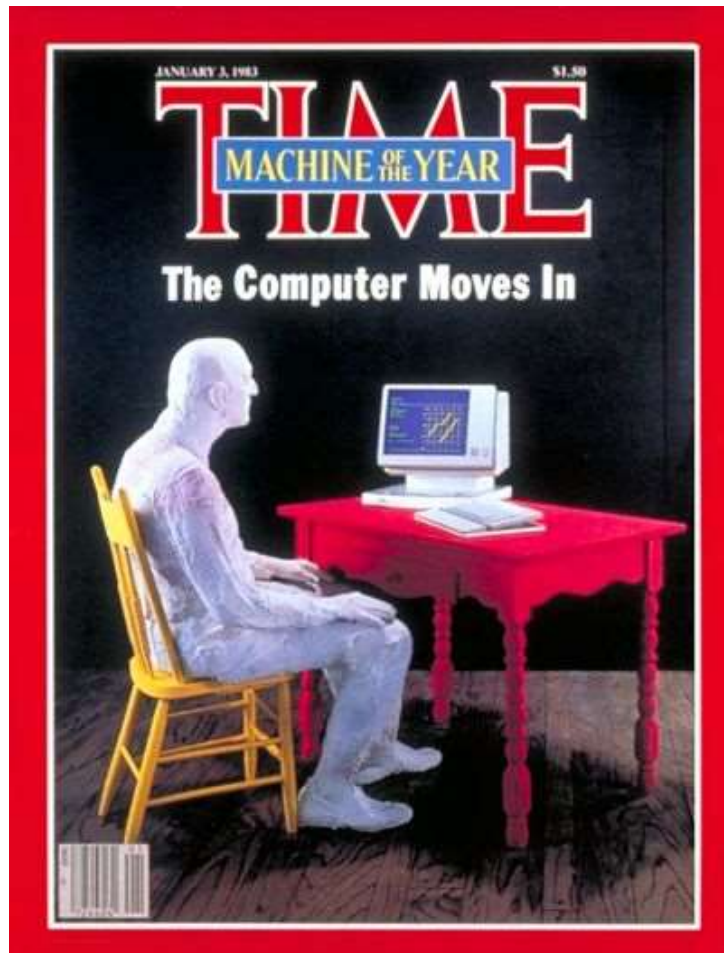


# 이승환

- 現) 국회미래연구원 연구위원
- 前) 삼성경제연구소 수석연구원  
소프트웨어정책연구소 책임연구원  
KT전략기획실/경제경영연구소 매니저  
한국전자통신연구원(ETRI) 연구원

## 진화 : 컴퓨팅의 Next Level, 공간(空間)

타임, 올해의 인물(1983년 1월 3일)



타임(TIME) 선정 2007년 최고의 발명품





진화 : 컴퓨팅의 Next Level, 공간(空間)

*“Today marks the beginning of a **new era for computing,**”*

*“Just as the Mac introduced us to **personal computing,** and iPhone introduced us to **mobile computing,** Apple Vision Pro introduces us to **spatial computing.**”*

*“Introducing Apple Vision Pro, Apple’s first **Spatial Computer**”*

*Tim Cook, Apple’s CEO.*



## Discover visionOS

All-new platform. Familiar frameworks and tools. Get ready to design and build an entirely new universe of apps and games for Apple Vision Pro.



[Meta](#)

## Introducing Our Open Mixed Reality Ecosystem

April 22, 2024



# Spatial Computing

진화 : 컴퓨팅의 Next Level, 공간(空間)

Simon Greenwold

Submitted to the Program in Media Arts and Sciences, School of Architecture and Planning, on the basis of partial fulfillment of the requirements for the degree of Master of Science in Media Arts and Sciences

## Abstract

Spatial computing is human interaction with a machine in which the machine retains and manipulates referents to real objects and spaces. It is an essential component of making our machines fuller partners in our work. This thesis presents a series of experiments in the discipline and analysis of its fundamental properties.

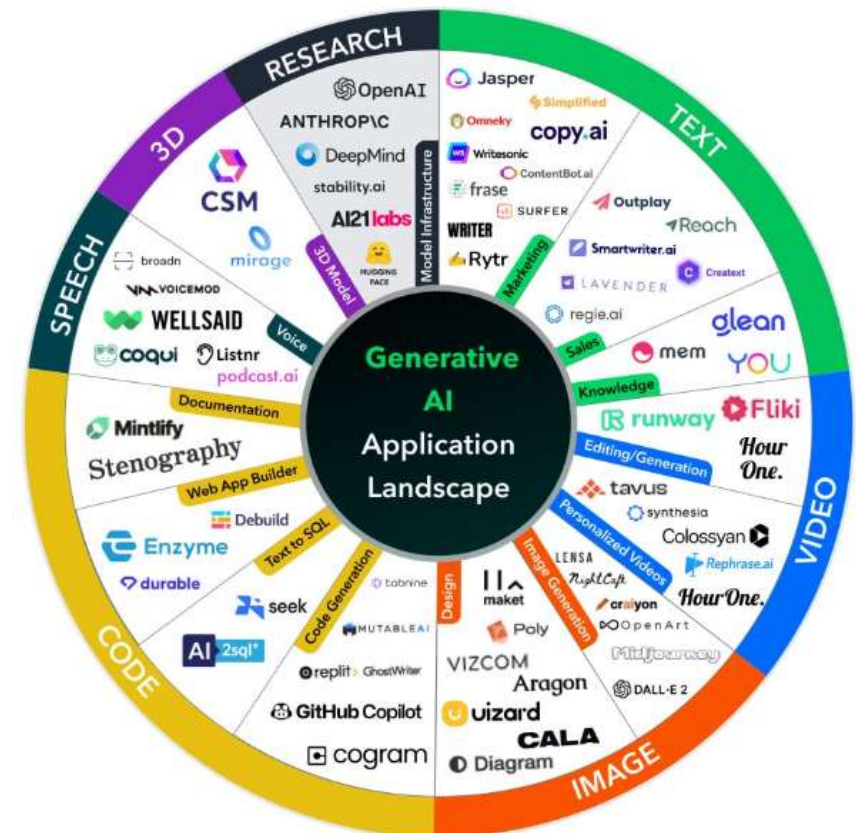
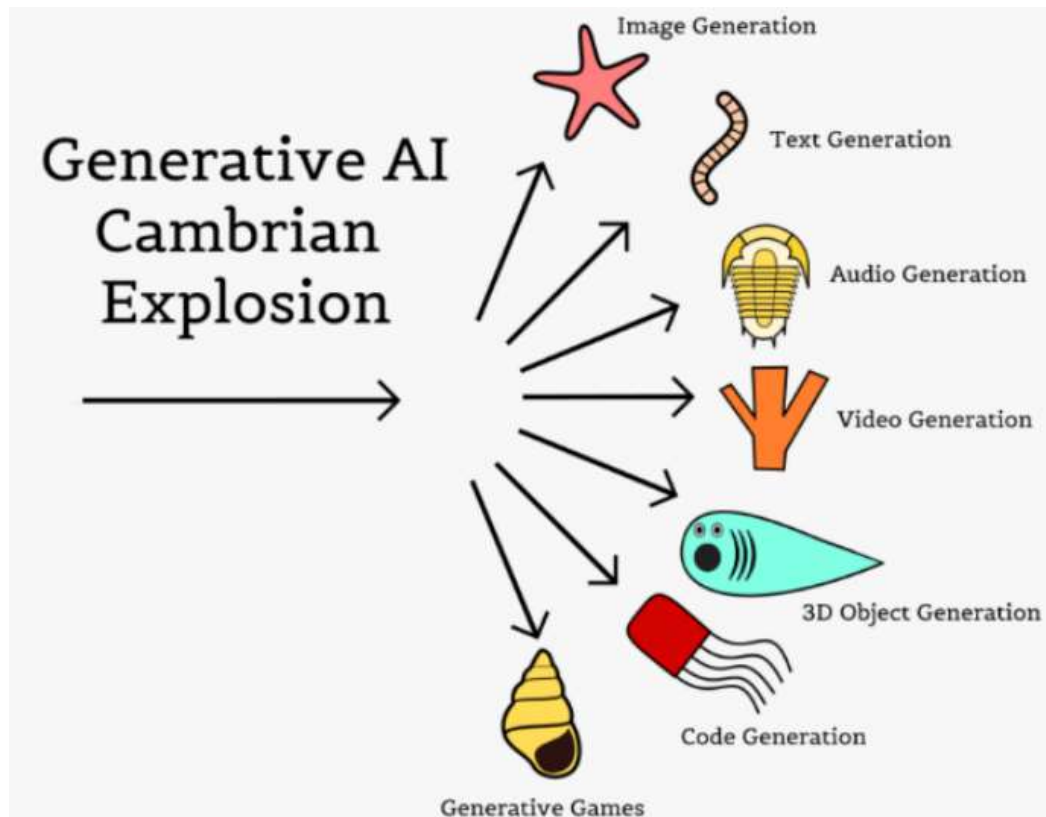
***Spatial computing is human interaction with a machine in which the machine retains and manipulates referents to real objects and spaces.***

“기계가 실제 물체와 공간을 참조하고 조작할 수 있게 하는 것으로, 인간과 기계가 함께 상호작용하는 것”

***Spatial computing proposes hybrid real/virtual computation that erodes the barriers between the physical and the ideal worlds.***

***Sometimes this means bringing space into the computer, sometime this means injecting computation into objects.***

## 디지털 지능(知能) 공간



생성 인공지능과 캄브리아기 대폭발 Samim A. Winiger(2022)

<https://semupdates.com/top-25-free-ai-tools-for-marketing-every-startup-must-use/>



# OpenAI launches ChatGPT app for Apple Vision Pro



Credit: VentureBeat made with Midjourney

<https://venturebeat.com/ai/openai-launches-chatgpt-app-for-apple-vision-pro/>

## 컴퓨팅의 Next Level, 공간(空間)과 AI

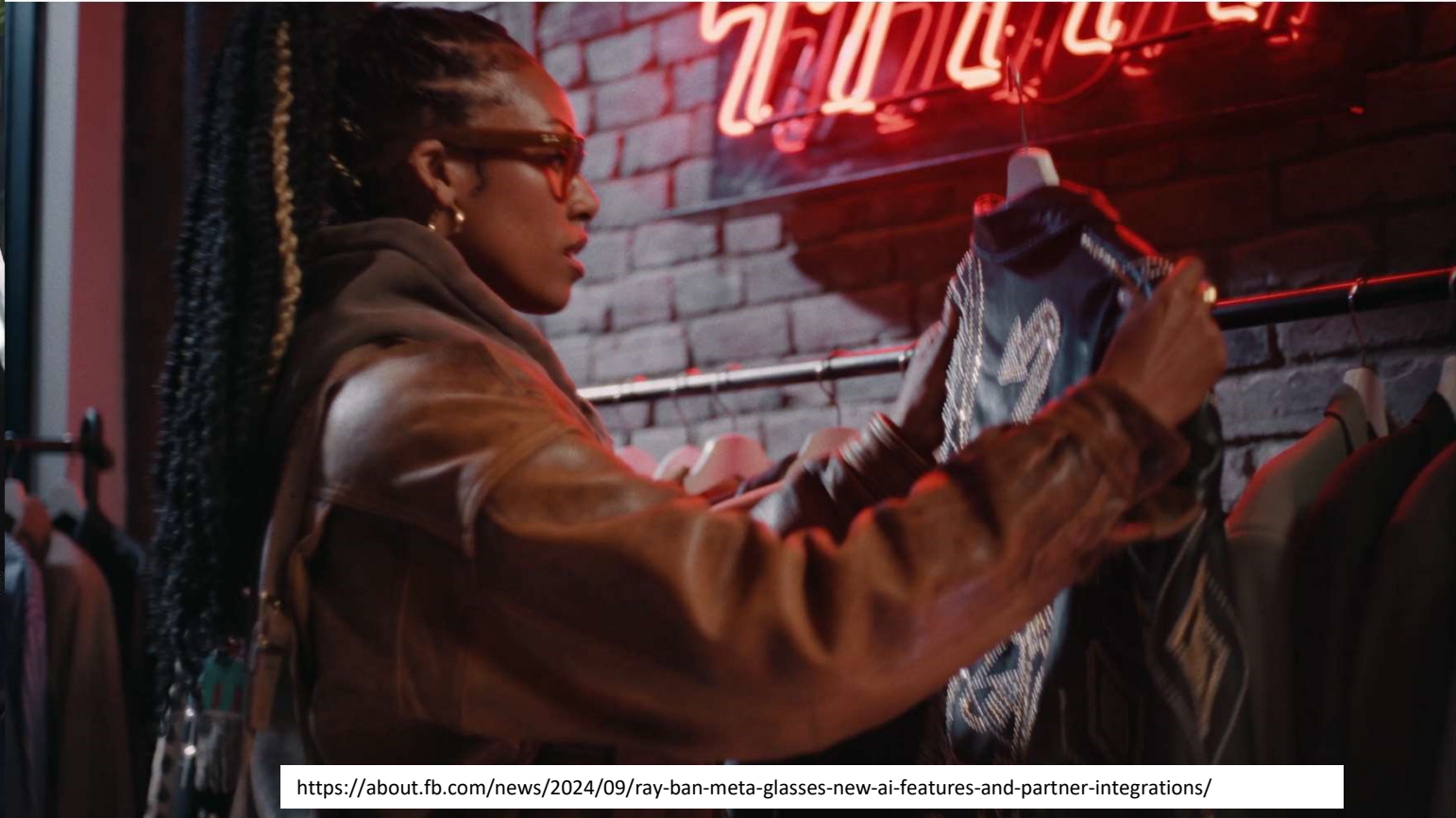
Meta

# Ray-Ban | Meta Glasses Are Getting New AI Features and More Partner Integrations

September 25, 2024



<https://www.youtube.com/watch?v=ub0KESi8VEY&t=1s>



<https://about.fb.com/news/2024/09/ray-ban-meta-glasses-new-ai-features-and-partner-integrations/>



# Spatial Intelligence

models the world and reason about objects, places, and events in 3D space and time

<https://www.youtube.com/watch?v=y8NtMZ7VGmU&t=10s>

**Fei-Fei Li: With Spatial Intelligence, Artificial Intelligence Will Understand the Real World**





Today we are announcing the formation of World Labs: a spatial intelligence AI company building Large World Models (LWMs) to perceive, generate, and interact with the 3D world. We aim to lift AI models from the 2D plane of pixels to full 3D worlds - both virtual and real - endowing them with spatial intelligence as rich as our own. Human spatial intelligence evolved over millennia; but in this time of extraordinary progress, we see the opportunity to imbue AI with this ability in the near term.

*What is  
spatial intelligence?*

FORBES > TECH

# The Next Leap In AI: From Large Language Models To Large World Models?

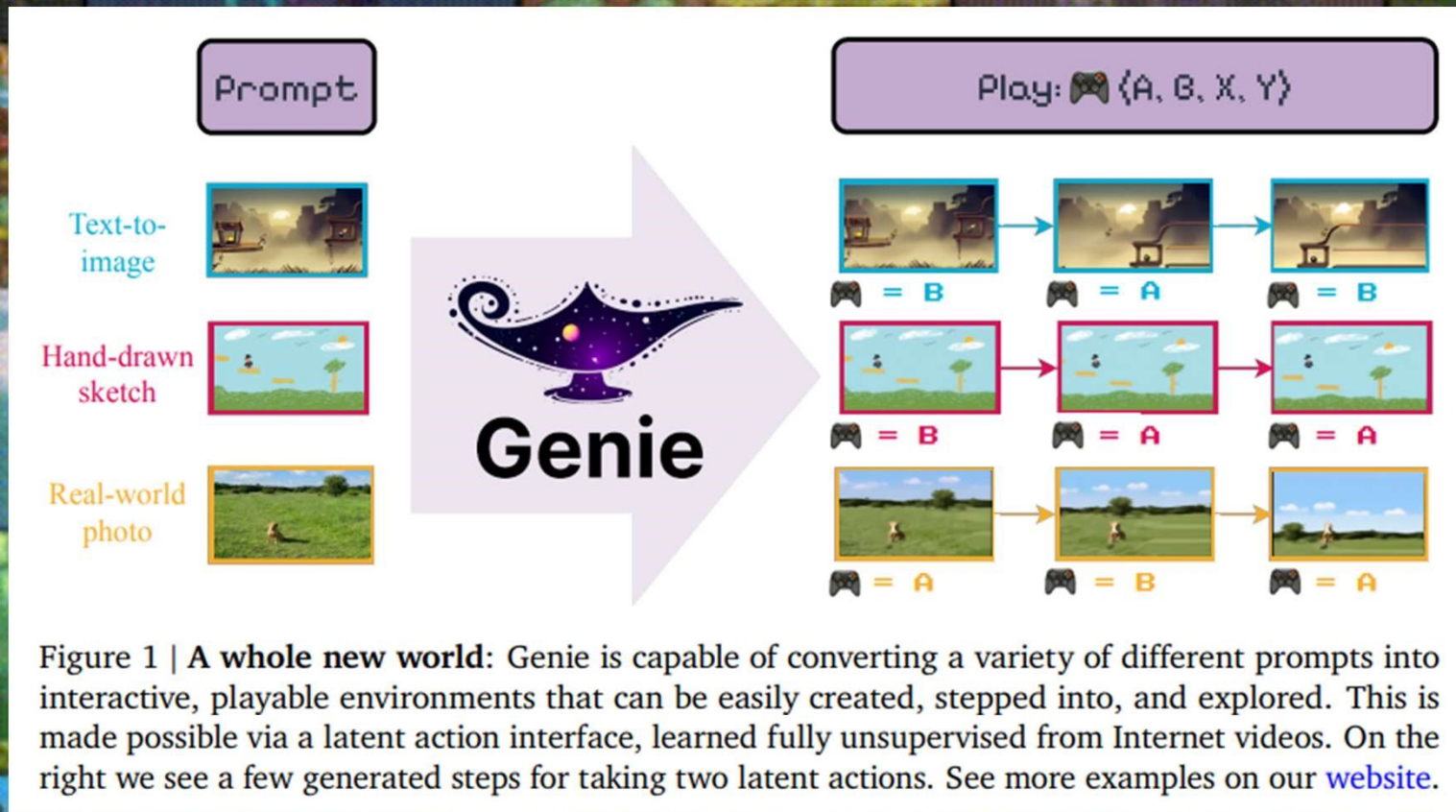


**Fabio Moioli** Forbes Councils Member

**Forbes Technology Council** COUNCIL POST | Membership (Fee-Based)



## 디지털 지능(知能) 공간



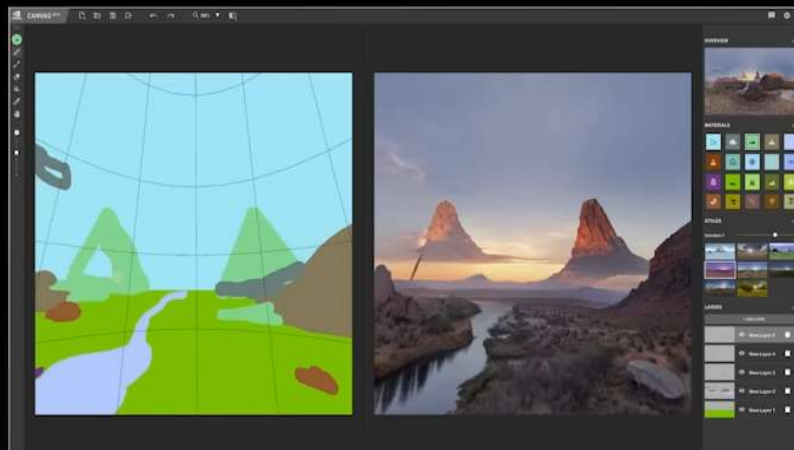


# NVIDIA CANVAS GOES 360

Turn Simple Sketches into 8K Environment Maps

연결과 상호작용

SKETCH IN CANVAS



EXPORT  
TO 3D

VISUALIZE IN OMNIVERSE



Beta Available in Q1 for RTX GPUs

누구와 어떻게 일할 것인가?

BUSINESS

# The CEO of Zoom wants AI clones in meetings

Zoom founder Eric Yuan has big ambitions in enterprise software, including letting your AI-powered 'digital twins' attend meetings for you.

By Nilay Patel, editor-in-chief of the Verge, host of the **Decoder podcast**, and co-host of **The Vergecast**.

Jun 3, 2024, 6:00 PM GMT+4

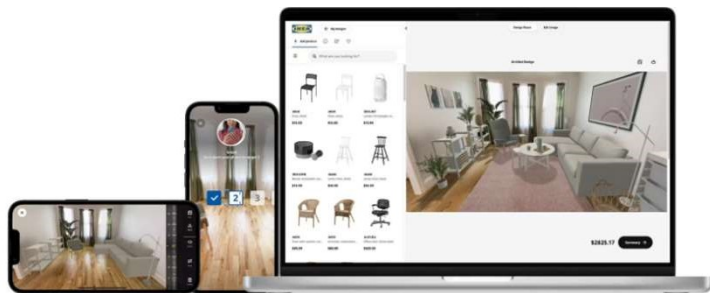


47 Comments (47 New)

Photo illustration by The Verge / Photo: Zoom

# 누구와 어떻게 일할 것인가?

**IKEA launches new AI-powered, digital experience empowering customers to create lifelike room designs**



**IKEA**

By ikea.com

Your IKEA AI Assistant: Effortlessly explore over 10,000 products, find Scandinavian design inspiration, check real-time availability, and more, all in a single, user-friendly experience for U.S. consumers exclusively.  
Logo ©Inter IKEA Systems B.V. 2024

Technology • 5 February 2024

**IKEA launches new AI-powered assistant in OpenAI GPT Store**

What can the IKEA U.S. GPT do?

I'm looking for advice.

Can you help me find...

I'll begin by uploading a picture of my room.



Message IKEA



ChatGPT can make mistakes. Check important info.



# 누구와 어떻게 일할 것인가?

20 April 2023

## Exploring the future with vintage designs in AI



개인화, 소유의 공간

“모든 사람이  
자신의 애플리케이션을 위한  
자신만의 코 파일럿을 구축할 수 있도록  
만들고 싶다”

사티아 나델라 MS CEO

# Microsoft Build

“당신만의 코 파일럿을 만들 수 있게,  
MS가 코 파일럿 구축에 사용한 플랫폼을 개방한다.  
검색 코 파일럿, 보안 코 파일럿, 생산성 코 파일럿,  
그리고 여러분 모두 스스로 만든  
코 파일럿을 가지게 될 것이다.”

케빈 스콧 MS CTO



RESEARCH

# OpenAI Releases Shap·E: A Leap Forward in Generating 3D Implicit Functions from Text

Their latest research in 3D model generation gets a major upgrade with Shap·E, addressing limitations of their previous model, Point·E.



CHRIS MCKAY

MAY 4, 2023 • 2 MIN READ



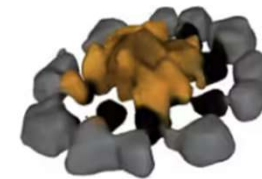
"a bowl of food"



"a penguin"



"a voxelized dog"



"a campfire"



"a dumpster"



"a chair that looks like an avocado"



"a traffic cone"



"a green coffee mug"

# AI와 공생하는 신인류, 슈퍼 개인이 온다

생성AI를 활용하여  
비트를 자유자재로 다룰 수 있는 사람

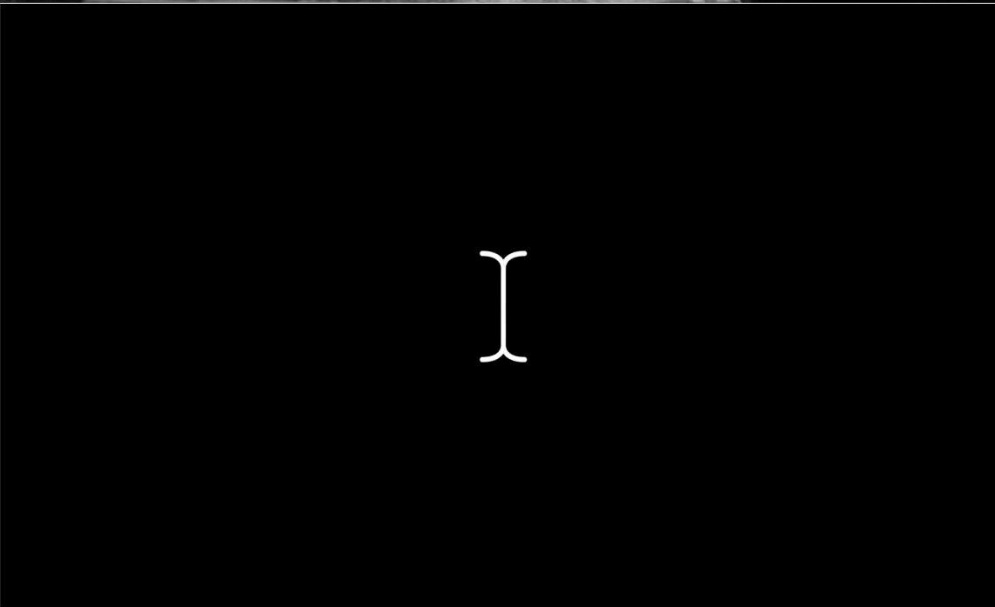
생성AI로 생산성을  
극강으로 높일 줄 아는 사람

- \*영화: 4억 → 8만원 ('23. Stability AI)
- \*이미지: 5시간, 150달러 → 1분, 8센트 ('23. Ark investment)
- \*코딩: 2배 이상 ('23. Ark investment)

생성 AI로 자신의 영역을 확장하며  
열정을 생성하는 사람







슈퍼 개인의 탄생

**“생성AI는 강력한 기술의 집합체로  
생산성을 100배 높인다.”**

“디지털 휴먼의 표정을 만드는 데 그동안 6명의  
아티스트가 4~5개월 작업했다면  
생성 AI로 몇 분 만에 할 수 있다.”

Marc Whitten, Unity 부사장

**“생성AI로 1인 유니콘이 등장한다.”**

Amjad Masad, 리플릿 CEO

## 혼자 만든 게임이 '세계 2위' 초대박...벌써 100만장 팔렸다

혼자서 세계 매출 2위...폴란드 1인에 게임계 놀랐다

중세 경영 게임 '매너 로드', 스팀 매출 2위  
출시 이틀 만에 100만장...동시접속 17만명  
영상 편집 프리랜서가 VR 게임 만드려다 제작

게임 시장에 다윗이 나타났다. 폴란드 영상 편집자가 홀로 개발한 게임이 세계 PC 게임 시장에서 매출 2위에 올랐다. 소니나 마이크로소프트가 공급하는 게임을 제치고 낸 성과다. 그래픽 엔진과 인공지능(AI) 기술의 보급 덕분에 고품질 게임의 개발 진입장벽이 낮아질 것이란 시장 전망이 나온다.

# MANOR LORDS

caryn.ai

The Washington Post

Democracy Dies in Darkness

An influencer's AI clone will be your girlfriend for \$1 a minute

CarynAI is the first AI companion product from a new startup called Forever Voices, allowing users to chat with a digital version of the fastest growing Snapchat star



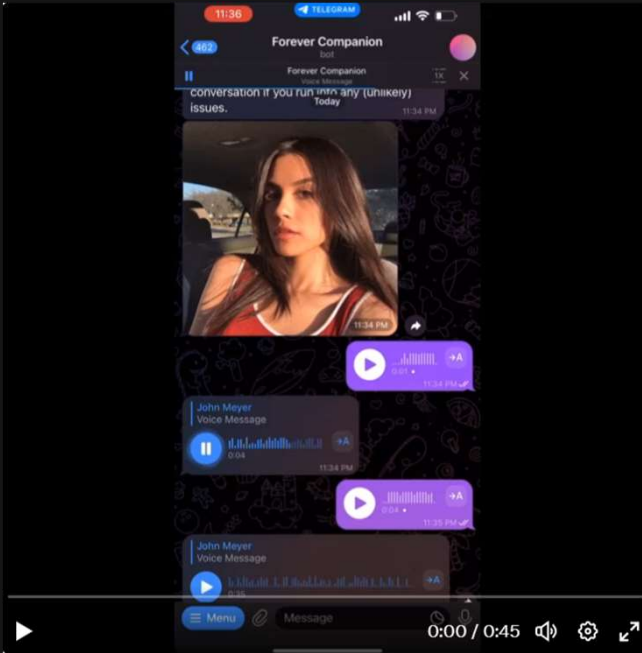
# The First Influencer Transformed Into AI

Discover Caryn AI – Your Virtual Girlfriend

Get early access

featured on

슈퍼 개인의 탄생



FORTUNE

Forbes

INSIDER

<https://www.washingtonpost.com/technology/2023/05/13/caryn-ai-technology-gpt-4/>  
<https://caryn.ai/>  
<https://twitter.com/ForeverVoicesAI/status/1657957041523105769>



# Generative AI on **ROBLOX**

슈퍼 개인의 탄생



ChatGPT 連携

AIパートナーと  
暮らす未来  
はじまる

 Gatebox®

사물 융합 공간





## 사물 융합 공간





## 변화의 속도, 가속

	PRE - 2020	2020	2022	2023?	2025?	2030?
TEXT	Spam detection Translation Basic Q&A	Basic copy writing First drafts	Longer form Second drafts	Vertical fine tuning gets good (scientific papers, etc)	Final drafts better than the human average	Final drafts better than professional writers
CODE	1-line auto-complete	Multi-line generation	Longer form Better accuracy	More languages More verticals	Text to product (draft)	Text to product (final), better than full-time developers
IMAGES			Art Logos Photography	Mock-ups (product design, architecture, etc.)	Final drafts (product design, architecture, etc.)	Final drafts better than professional artists, designers, photographers)
VIDEO / 3D / GAMING			First attempts at 3D/video models	Basic / first draft videos and 3D files	Second drafts	AI Roblox Video games and movies are personalized dreams

Large model availability:



First attempts

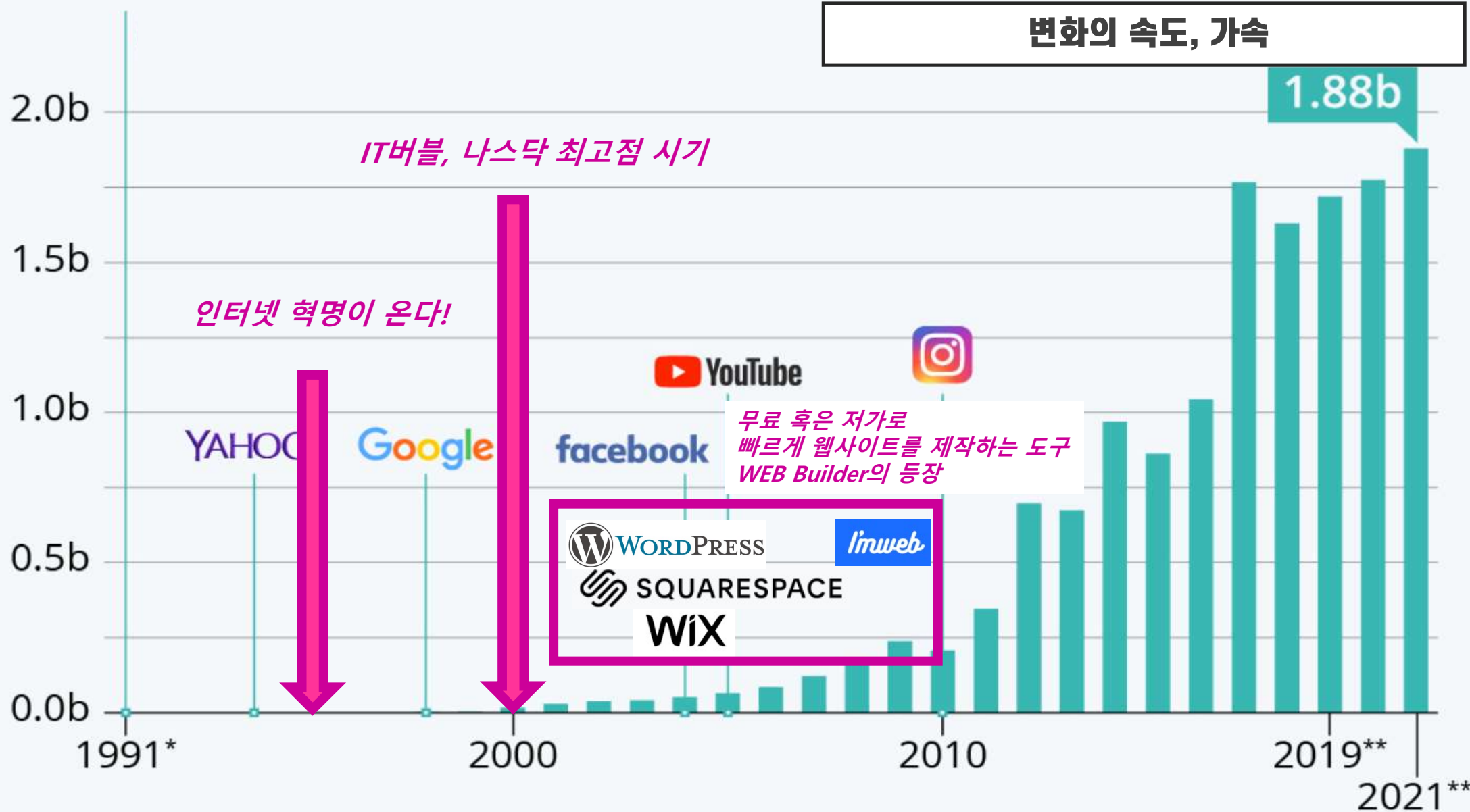


Almost there



Ready for prime time

변화의 속도, 가속



## 변화의 속도, 가속





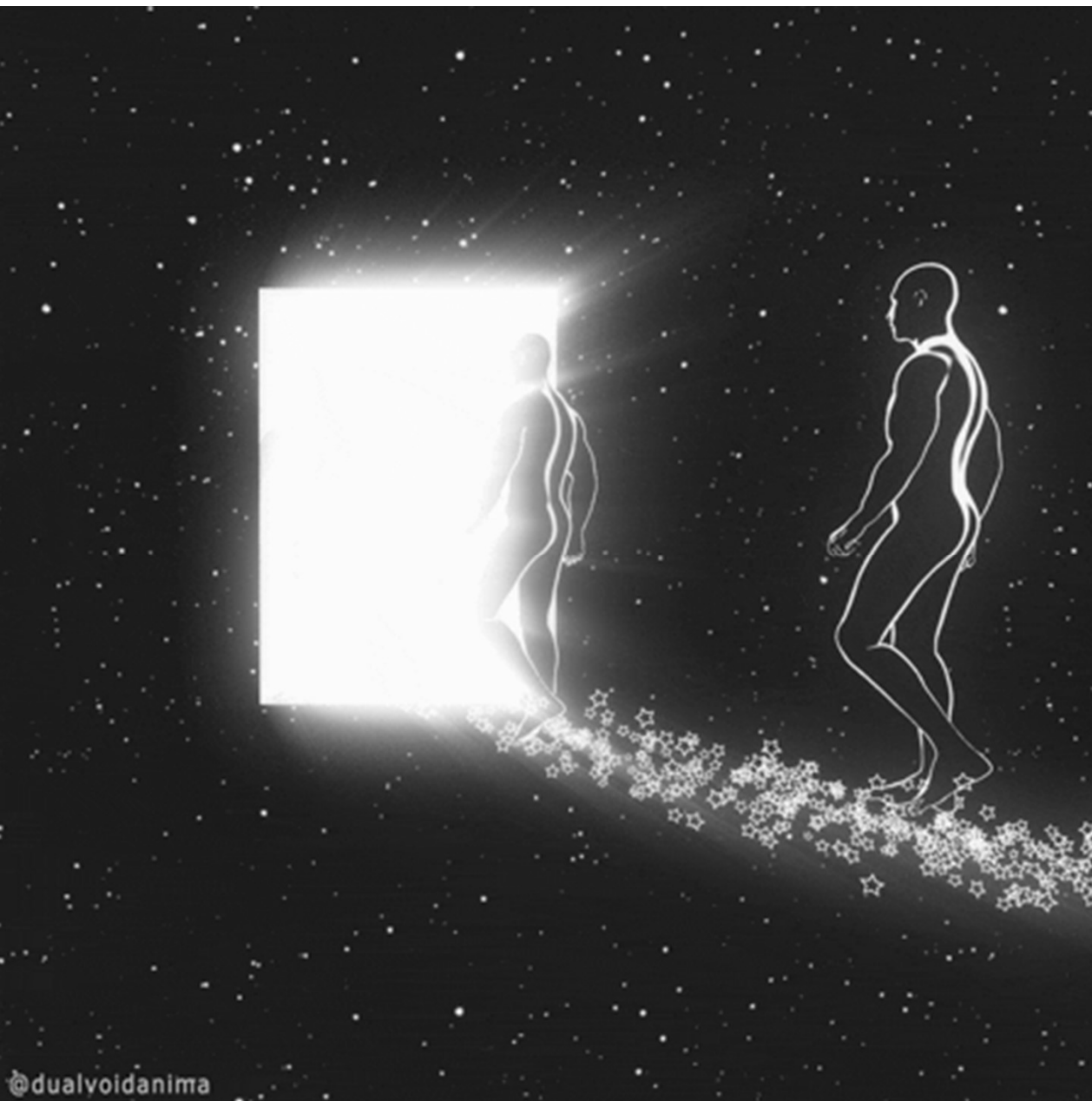
# 디지털 공간에 특이점(Singularity) 이 온다



**가상공간으로 융합하고, 수렴하는  
복합 범용 기술(D.N.A+XR)**

\* 특이점 (Singularity) : 기존의 기준이나 해석이 적용되지 않는 특이한 지점

\*\* Big data, Block chain, Cloud 등 D(Data Technology), 5G 등 N(Network), A(Artificial Intelligence), XR(eXtended Reality)



@dualvoidanima



인간 x 공간 x 시간



오감과 육감



학습, 행동, 경험



# 공간지능 시대와 미래

**진화 방향을 고려한 디지털 공간 경제 전략 수립**

**LLM에서 LWM 으로의 진화 방안**

**Vision Pro, Vison OS 등으로 촉발된 공간 컴퓨팅 대전(大戰)**

**공간 컴퓨팅 x 생성AI → 경험 가치 제고**

**공간컴퓨팅과 사물의 만남, 슈퍼 개인 양성**

**한계점과 진화 속도에 대한 인식, 시차 대응**

**신기루 속의 신세계, 부작용에 대한 준비**





# 감사합니다.

seunghwan74@naver.com