

#### NON FUNGIBLE TECHNOLOGY 2023 SEOUL

#### Part 2 - NFT ART

#### Thoughts on the Evolution of Art in the Age of Generative AI, NFT and other Digital Technologies

**차인혁** (전)CJ올리브네트웍스 대표



#### Thoughts on the Evolution of Art in the Age of Generative AI, NFT and other Digital Technologies

A Personal Observation

2023.09.01

Inhyok Cha, Ph.D. Former) Group Chief Digital Officer (CDO) of CJ Group Former) CEO of CJ Olivenetworks Thoughts on the Evolution of Art in the Age of Generative AI, NFT and other Digital Technologies

A Personal Observation

2023.09.01 Inhyok Cha, Ph.D. Former) Group Chief Digital Officer (CDO) of CJ Group





#### Dr. In Hyok Cha (차인혁)

현) CJ올리브네트웍스 고문, Executive/Technologist/Investor

2020.1-2023.7.16	CEO of CJ Olivenetworks
2019.9-23.1	Group Chief Digital Officer(CDO) of CJ Group
2022.9-present	대통령 직속 디지털플랫폼정부 위원회 위원
2021.1-2022.2.	디지털뉴딜 국가자문위원단 부단장
2021.9-present.	세계지식포럼 Metaverse Governance Committee 멤버
2021.3-2022.12.	과학기술정보통신부 우주산업전략 위원회 민간위원
2022.1-present	과학기술정보통신부 5G 전략위원회 민간위원
2017.9- 2021.9.	대통령직속 스마트시티 특위위원/대외협력분과위원장
2022.5-present	한국국제문화교류진흥원(KOFICE) 사외이사
2021-present	Advisory BoD member, Sierra Ventures, USA
1996-2019	R&D Leader, Org Manager, and Executive at:
	Bell-Labs, InterDigital, Samsung SDS and SKT
2006-2008 1990-1995 1984-1990	MBA, Drexel University Ph.D. in EE AI, University of Pennsylvania BS/MSEE, Seoul National University

Inventor with 110+ patents, researcher with 50+ papers Technical Interests: AI, Web3, Climate Tech, Life Sciences, Digital Art, Space Technologies, etc Everything Excellent Is As Difficult As It Is Rare

-Ethics, Baruch Spinoza

#### In this Talk

?



NFT

Other Digital Tech

A.I.

Can you make me a VBA code that produces a Powerpoint slide file with the following contents and title. The title should be "Thoughts on Evolution of Art with the advent of A.I., NFT and other digital technologies". The slides should contain contents on the following topics: 1. New Digital Tech and means for Art: Generative A.I., reusable metaverse, advanced mathmatics, digital games, digital humans, digital objects and scenes, 2. Observed and expected changes in Art: Immersion, interactivity, experienaiality, multimodality, participativity, multi-PoVs, physitality, spatio-temporality, emergence, 3. How may Art NFTs evolve?: Stronger resilience and transparency, better traceability, NFTs as long term legal and enforceable smart contracts, evolution of NFT markets, etc. Don't just give me a placeholder with the above given wordings but form suggest you own contents based on the given keywords, and structure the Powerpoint slides according to your contents output.

~

View other drafts ^

Draft 1	Draft 2	Draft 3		)
Sure, I can help you with that. Here is the	Sure, here is the VBA code that produces a	Sure, here is the VBA code that produces a	C	
VBA code that you can use to create a	PowerPoint slide file with the contents and	PowerPoint slide file with the following		
PowerPoint slide file with the contents and	title you specified:	contents and title:		

Sure, I can help you with that. Here is the VBA code that you can use to create a PowerPoint slide file with the contents and title that you specified:

'Declare variables

 $(\pm)$ 

title that you specified:

Enter a prompt here

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You just gave me, despite my directions, a placeholder contents. Can you actually generate and recommend contents based on those keywords that I gave you, for the powerpoint file?

View other drafts 🗸 🗸

-D

Sure, I can do that. Here is a possible outline for the PowerPoint presentation, with my own suggested contents based on the given keywords:

#### Slide 1: Title slide

- Title: Thoughts on Evolution of Art with the advent of A.I., NFT and other digital technologies
- Subtitle: New Digital Tech and Means for Art

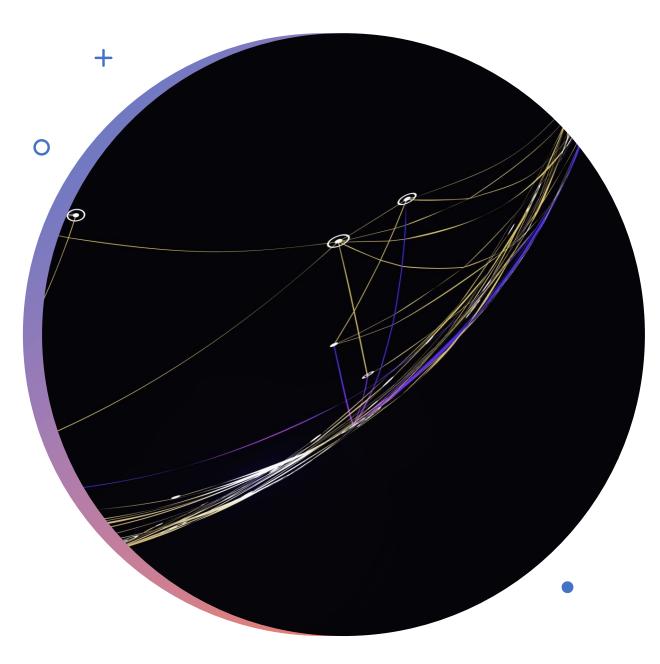
#### Slide 2: Observed and Expected Changes in Art

- Immersion: Art that can be experienced in a more immersive way, such as through virtual reality or augmented reality
- Interactivity: Art that allows the viewer to interact with it in a more meaningful way, such as through games or simulations
- Experientiaiality: Art that can be experienced in a more experiential way, such as through sensory or emotional engagement
- Multi-modality: Art that uses multiple modalities, such as sound, visuals, and text, to create a richer experience
- Participativity: Art that allows the viewer to participate in its creation or interpretation

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1:

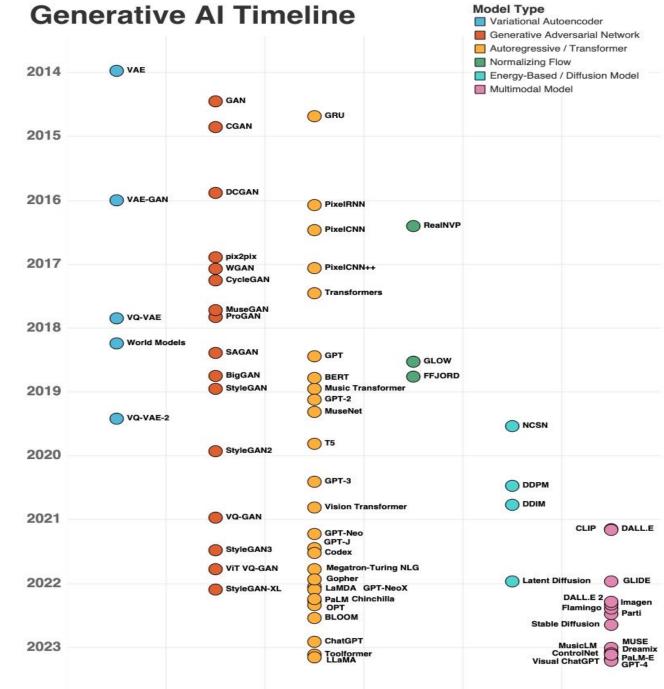
#### Generative A.I.



## Generative AI?

- Took the world by storm
- Subset of AI, specializing in generating data that mimics the characteristics of real-world data,
- Generates synthetic, reallike data





SOURCE: KAGGLE, ALLENA VENKATA SAI ABY

#### Some Gen Al Tools of '23

## Best 12 AI Tools in 2023

Solves anything - Chat GPT Writes anything - Writesonic Generates Art - Midjourney Gienerates Code - Replit Generates Video - Synthesia Generates Music - Soundraw Generates TikToks - Fliki Generates Avatars - Starrytars Grenerates PPTs - Slides AI Edit Pictures - Remini Edit Videos - Pictory Summarize Notes - Wordtune

#### Generative AI Use Cases and Services

- Content generation: Create text, images, and other forms of contents, like marketing materials, educational content, creative text formats like poems, scripts, musical pieces, email, letters, etc.
- Data augmentation: Augment real data sets. This can be helpful for training machine learning models, as it can help to reduce overfitting and improve the accuracy of the models.
- Code generation: Write SW code. Not only write but develops entire software. Automate the process of writing code and make it easier to create new features.
- Text-to-image synthesis: Synthesize images from text descriptions. May help create images for early drafting, early screening, and illustrating a particular concept economically
- Audio synthesis: Synthesize audio. Creating music, generating sound effects for movies and video games, or generating audio for educational content.



Source: BCG Henderson Institute.

Issues of Generative A.I.

#### First, It Started as a Fun Thing To Generate Al Art Images

#### Midjourney

- 😤 Community Showcase
- Help & FAQ
- (i) About & Careers



#### /v5\_upscale yesterday the hunter stalks it's prey, dramatic National Geographic photograph,

groucho\_007

brilliant colors, amazing lighting







#### Fun, did you dare to say?



Even Claiming Future of Creativity



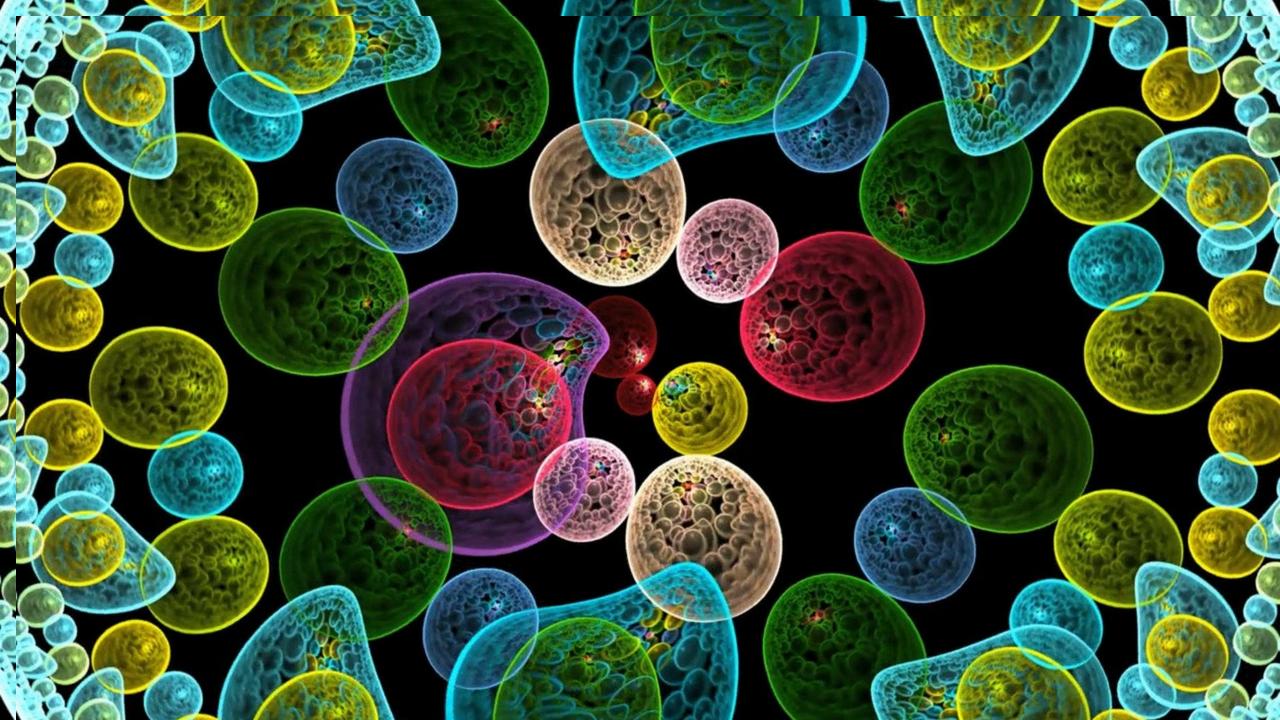
## The Legal Fights Have Not Even Beauto

19

.. Free will, which all boast that they possess, consists solely in the fact, that men are conscious of their own desire, but are ignorant of the causes whereby that desire has been determined

-Ethics, Baruch Spinoza

Source: Damocles, Generative VS AI-Generated Art: What's the Difference?











## Anadol: All The World's Data





#### 2:

#### Metaverse

#### Sigur Ros: Tonandi

in collaboration with magic leap studios



## Anna Zilayeva F

#### @AnnaDreamBrush

## Krista Kim: Mars House



#### Virtual Humans,

#### As Performers & Creators

# GGF 儿的战码, 다양하게 슬립고요





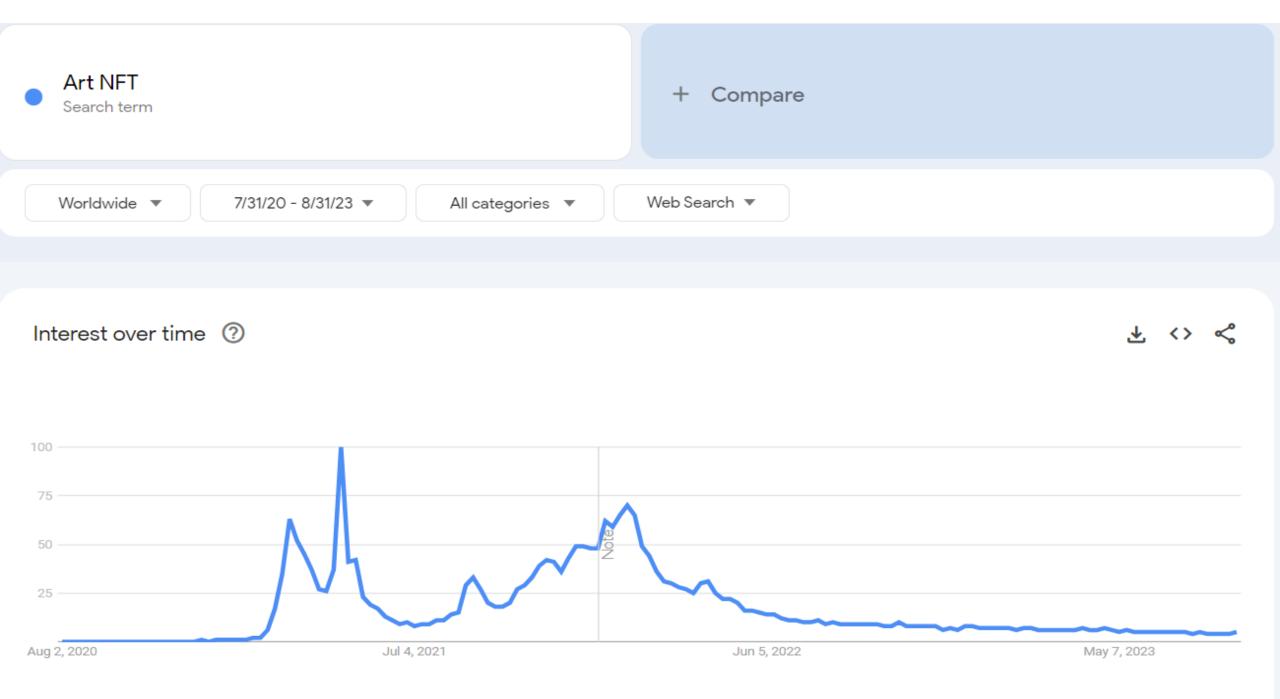
#### '9+i' 시(詩)집

Oi Writer Pro 버전으로 9명의 작가분들과 협업을 하였고, 작가분들의 직접적인 의견을 수렴하며, 수차례 Oi Writer도 업그레이드를 하였습니다. 사람과 AI가 함께 시행착오를 거치며 공존하는 방법을 간접적으로 체험할 수 있는 시간을 담은 소중한 시(詩)집 '9+i'의 출판을 여러분께 공개 할 수 있어 행복합니다.

#### 3:

#### Some thoughs for

#### Art NFT Evolutions





#### But, Perhaps, Enough of These Guys ...







#### **Some Thoughts for Future NFTs**

Other than Non-fungibility

Protector of each of our Uniqueness?

> Foster Good Behavior @ Scale?

Real, Strong

Communities?

Long Term Value Preservation?

#### **Can Each of Our Uniquenesses**

#### **Become Basis of Our Values?**





WORLDCOIN



WORLDCOIN

#### But, Hopefully, Not Like This ...

### THANK YOU