



MEET THE METAVERSE!

A Reality Check for Insights.

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MEET THE
METaverse!
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Session 1

09:45

Session 1: Meet the Metaverse

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09:45

ASC Welcome and Introduction



By **Monica Kaur**, ASC Committee | VP Business Development, M3 Global Research
| **Matt Gibbs**, ASC Committee | Founder, Bayes Price



10:00

The Metaverse: An Overview

By **Carl Hayden Smith**, Principal Research Fellow, Ravensbourne University London.



10:30

Metaverse, Web 3.0 & what it means for research.

By **Dr Nick Baker**, Global Chief Research Officer, Savanta

11:00

Drinks (Refreshments & Networking)





10:00

The Metaverse: An Overview

By **Carl Hayden Smith**, Principal Research Fellow, Ravensbourne University London.

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- Head of Research at Ravensbourne University London.
- 20 years' experience of hybrid technologies for perceptual, cognitive and creative transformation.
- He is focused on using both the technological and biological means to alter, probe and study the spectral nature of consciousness.
- Carl has given over 300 invited public lectures, conference presentations and keynotes in 40 countries and published more than 100 academic papers.
- His research interests include Embodied Cognition, Spatial Literacy, Umwelt Hacking, Sensory Augmentation, Artificial Senses and Body Hacking.

The Metaverse: Overview and Ethical Challenges



Carl Hayden Smith

Summary of the presentation:

1) I will provide an Overview of the Metaverse from the perspective of Extended Reality and Web3...

2) We will look at the Metaverse from different perspectives: business (industry, fashion + music) also identity and the human condition.

This will be framed through the ethical challenges of two projects:

i) 'Volumetric as a Service'

ii) XPRIZE Rapid Reskilling 'Neuro-Adaptive Mixed Reality Training platform'

What is the Metaverse?

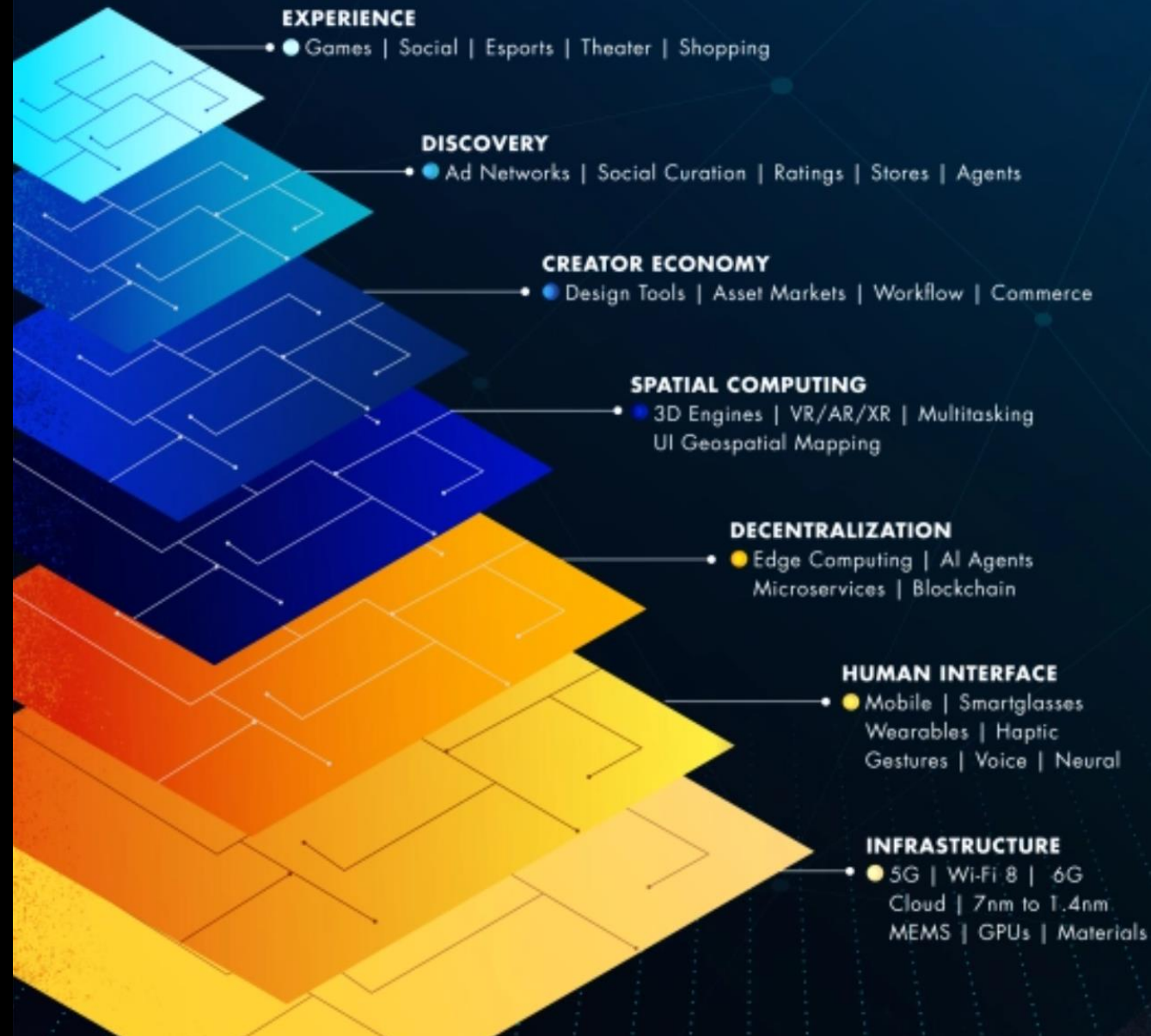
Neal Stephenson introduced the world to the concept of a metaverse in his science fiction novel 'Snow Crash' in 1992. Neal envisioned an **online universe which closely resembled reality** and people could use avatars to explore and **escape from the problems of the real world.**

The common understanding of the metaverse = a virtual world where users can interact with each other and engage in activities such as gaming, socialising and business activities.

So much room for disruption as much of our traditional media is archaic

My argument: the metaverse should be in AR layer not a VR layer (**Enhanced reality, not diminished reality**).

EXPLORING THE 7 LAYERS OF THE METAVERSE



Evolution of the Web summarized

Generation	Portals (large organizations)	People, ONGs and small companies	Agents (computers, tablets and smartphones)	Virtue
Web 1.0	P	C		democratization of information access
Web 2.0	CP	CP		democratization of content production
Web 3.0	CP	CP	CP	democratization of the capacity of action and knowledge

www.aquare.la

C - Consume

P - Produce

Web 1.0 = **read-only** web, which lasted from the beginning of the internet in 1989 to the early 2000s.

Web 2.0 = **read-write web**. It became official around 2004, and it is what we use today

Web 3.0 = **read-write-own or read-write-execute version of the internet**. Decentralization, privacy, machine learning and safety are some trends

Metaverse v/s Web 3.0

Metaverse

Web 3.0

Definition

A digital environment that combines digitally enhanced physical reality with physically persistent virtual environments

A new internet iteration aims to establish a decentralized online network in which users own and control the material and assets they create

The Application Scope

It is still under development, and the potential areas are still under scrutiny

Throughout the web, it is applicable

Target

VR, AR ,XR((Extended Reality) world facility

Blockchain controlled, peer-to-peer network facility

Application

Virtual Gaming, Health Surgery, 3d Training, Social Events

Democratic system, permissionless network like Crypto world(system run without market monopoly)

Depiction

Dematerialization of physical entity around us to digital space

Individual owned and regulating internet

Underlying Technologies

Connectivity technology ●
Human interface ●
Decentralization technology ●

● Blockchain & cryptocurrency
● NFTs
● DAOs
● DeFi

Technical

Powered by wifi6,6G,Spatial computing(VR,XR,Geo mapping), creator economy (asset market,mint NFT)

Powered by Decentralized Autonomous Organization, AI (Artificial Intelligence), Blockchain

01

Digital Currency



02

Marketplace/Digital Commerce



03

Online Shopping



04

Non Fungible Tokens (NFTs)



05

Workplace



06

Infrastructure



07

Social Media



08

Device Independence



09

Gaming



10

Digital Assets



11

Digital Humans



12

Natural Language Processing



13

Concerts, Social and Entertainment Events

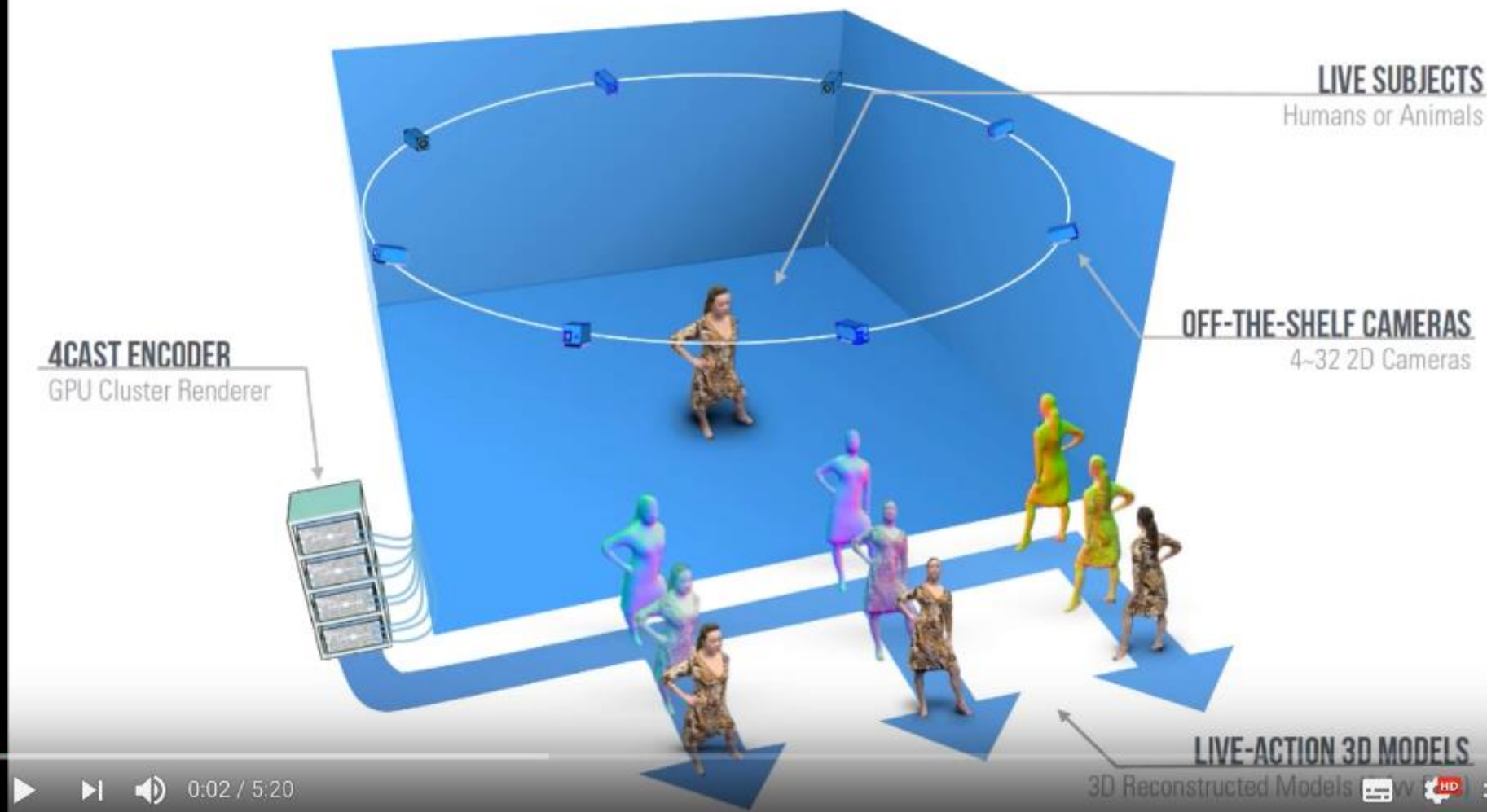


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Elements of Metaverse



YOU AT A HOLOPORTAL STUDIO





MULTI-ANGLE 2D VIDEOS



DYNAMIC 3D MODELS



0:10 / 5:20





holoLAB RAVE



0:28 / 5:20





Holographic Mixed Reality



**Double Me / Ravensbourne collaboration:
Frameworks for how these volumetric studios
should operate have yet to be formulated.**



Structure Sensor: Capture the World in 3D

by Occipital

[Home](#)[Updates](#) **7**[Backers](#) **3,515**[Comments](#) **355**[San Francisco, CA](#) [Hardware](#)**Funded!** This project successfully raised its funding goal on Nov 1.

Learn more at
STRUCTURE.IO



▶ **PLAY**

3,515

backers

\$1,290,439

pledged of \$100,000 goal

0

seconds to go

Funding period

Sep 17, 2013 - Nov 1, 2013 (45 days)



occipital

LIDAR IN EVERYDAY DEVICES

- Already many mobile devices **have inbuilt lidar technology + can create a 3D point cloud of any environment or object.**
- This has a direct impact on our privacy.
- **When Google Glass was released**, it was immediately banned in department stores as it was deemed an unacceptable invasion of privacy.
- Now however, depth sensors are being built into all sorts of devices **and ethical mechanisms for protecting one's body image and possessions have not been well established.**



Context Engineering - Professor Michitaka Hirose





Smith, C. H. and Templar Lewis, K. (2021).
The Metaverse: A New World of Extended Reality. Masters and Robots, Poland.
<https://youtu.be/bHXEPdwh5ws>

ETHICS:

1) Digital twins make up the fabric of the metaverse, where the virtual and the digital are **connected through a network of sensors**.

2) By wearing an AR headset such as the Microsoft Hololens, **you by default are generating 3D models of everything you see, this includes other people. The issue is that once your body image has been captured, it can be used, ad-infinitum in deep-fake productions**

3) **The Non-Fungible Token (NFT) could be used as one way to protect your body image Intellectual Property (IP).** This means you would be the rightful owner of your digital self.

XPRIZE RAPID RESKILLING - how to develop immersive XR application areas with the help of AI, Machine Learning and Sensory Augmentation



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TO THE
SANDBOX
METaverse



spatialxr X readyplayerme





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INTO THE METAVERSE

In December, the Bored Ape Yacht Club, PUNKS Comic and gmoney welcomed adidas Originals Into the Metaverse.

The physical merch claim window has now closed. We are officially in Phase 2.

[EXPLORE MORE →](#)

AFTERWORLD

THE AGE OF TOMORROW

The Age of Tomorrow is a **radical immersive adventure and deep dive into Balenciaga's Fall 2021 collection**. Bringing to life this projected future, **Dimension collaborated with Balenciaga** for one of the most innovative volumetric projects ever undertaken.



“I predict that dating apps will start featuring body scans pretty soon; with a digital signature on the scan to prove it is recent. I believe this will not be a good trend.”
Vinay Gupta



Ready player me.

One of the core metaverse tools is ready player me.

Every fashion label in the world is is creating avatars via Ready Player me.

With Ready Player me you create an avatar which is controlled by your local camera. **That avatar then represents you anywhere in the virtual world.**

You can buy clothes and shoes for it

Samsung interviewed their latest cohort of employees via virtual reality,

1) The fashion industry is a significant polluter and resource abuser.

ADVANTAGES OF THE METAVERSE FOR THE FASHION INDUSTRY :

- 1. Designers will be able to save money on sample costs while still producing high-quality designs.**
- 2. Designers can reach greater size of audience**
- 3. Fashion brands can now collaborate with their audience.**
- 4. The customer can dictate what they like to fashion brands**
- 5. Retail touchpoints** linking physical and virtual = magic mirrors
- 6. Metaverse helps us create metadata:** narrative and context around the object



NFTs targeted the art and fashion markets first, now targeting the music industry (Vilvi.io above)

Q) Problem is music is regarded very differently to art and fashion, especially in terms of ownership, so how will the music industry be impacted by the metaverse and web 3D capabilities?

- 1) Physical event activations:** Live minting on the night to own a piece of that performance / owning a piece of history (Nxt Museum)
- 2) 'A slice' app** = enables compensation of individual artists iwithin a DJ set
- 4) Web3 enables connection with superfans giving them unique experiences** enables artist to get closer to the artists and understanding their practise when you have enough tokens or **Proof of Attendance Protocol (POAP)**
- 5) For anyone doing live events, please investigate the opportunities as this will help build your community fanbase**

Summary

- **Focusing on user data privacy and encryption is a paramount concern for the development of a fair and equitable metaverse.**
- **Further research should seek to protect our ethical rights of privacy, integrity, and autonomy while still fostering user agency through experiences that are empowering, educational and entertaining.**



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