



International Broadcast Day 2019
Broadcast & Media on the move



INTERNATIONAL

DIGITAL STRATEGY

CROSS-MEDIA PRODUCTIONS

ARTIST & BRAND PARTNERSHIPS

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CLIENT TASTER PORTFOLIO

ALL3MEDIA, AEG LIVE, ANGRY BIRDS/ROVIO, BBC ONE, BBC RADIO 1, BBH, BERLIN MUSIC MOST WANTED, CBBC, COMEDY CENTRAL, CONDE NAST, DUBLIN MUSIC X TECH SUMMIT, ISLAND RECORDS, IBC, ITV, JAMIE OLIVER, JAMIROQUAI LTD, LIVE NATION, MARVEL, MTV, MUTE RECORDS, MICROSOFT REACTOR (LDN), NICKELODEON UK, OBJECTIVE MEDIA GROUP, O2 MUSIC, PRINCE'S TRUST, ROYAL HOLLOWAY LONDON UNIVERSITY, SAMSUNG, SKY, SKYPE, SONY MUSIC, SYCO, STARCOM/MEDIAVEST, SWATCH, UNIVERSAL MUSIC, VIRGIN/EMI, THE VOICE UK, VOGUE, WARNER MUSIC, WALL TO WALL, WARNER BROS TELEVISION & MORE...



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THE 4th INDUSTRIAL REVOLUTION:

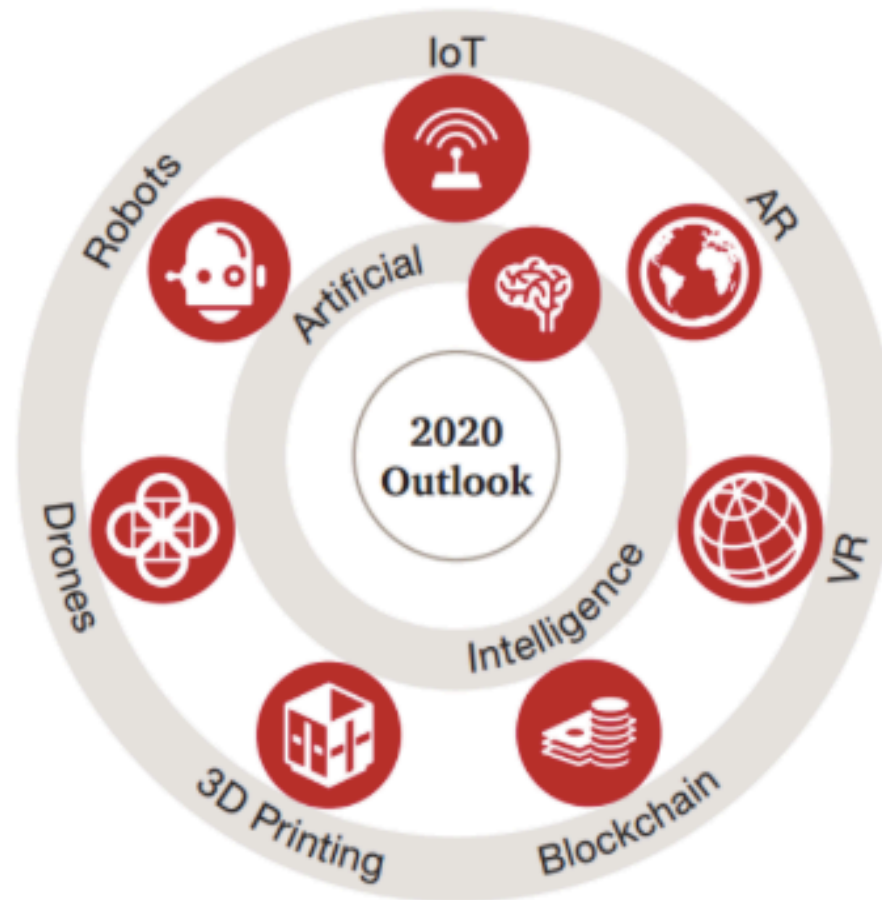
**THE RE-BIRTH of the IMMERSIVE
FORMAT**

THE WINKY DINK!

*1950's US of Hey
the world's 1st
immersive, interactive
'magic window' /
experience?*



The “essential eight” emerging technologies



The Cheat Sheet

VR= Virtual Reality

AR= Augmented Reality

AudioAR= 3DSpatial Audio

MR= Mixed Reality

XR= Extended Reality

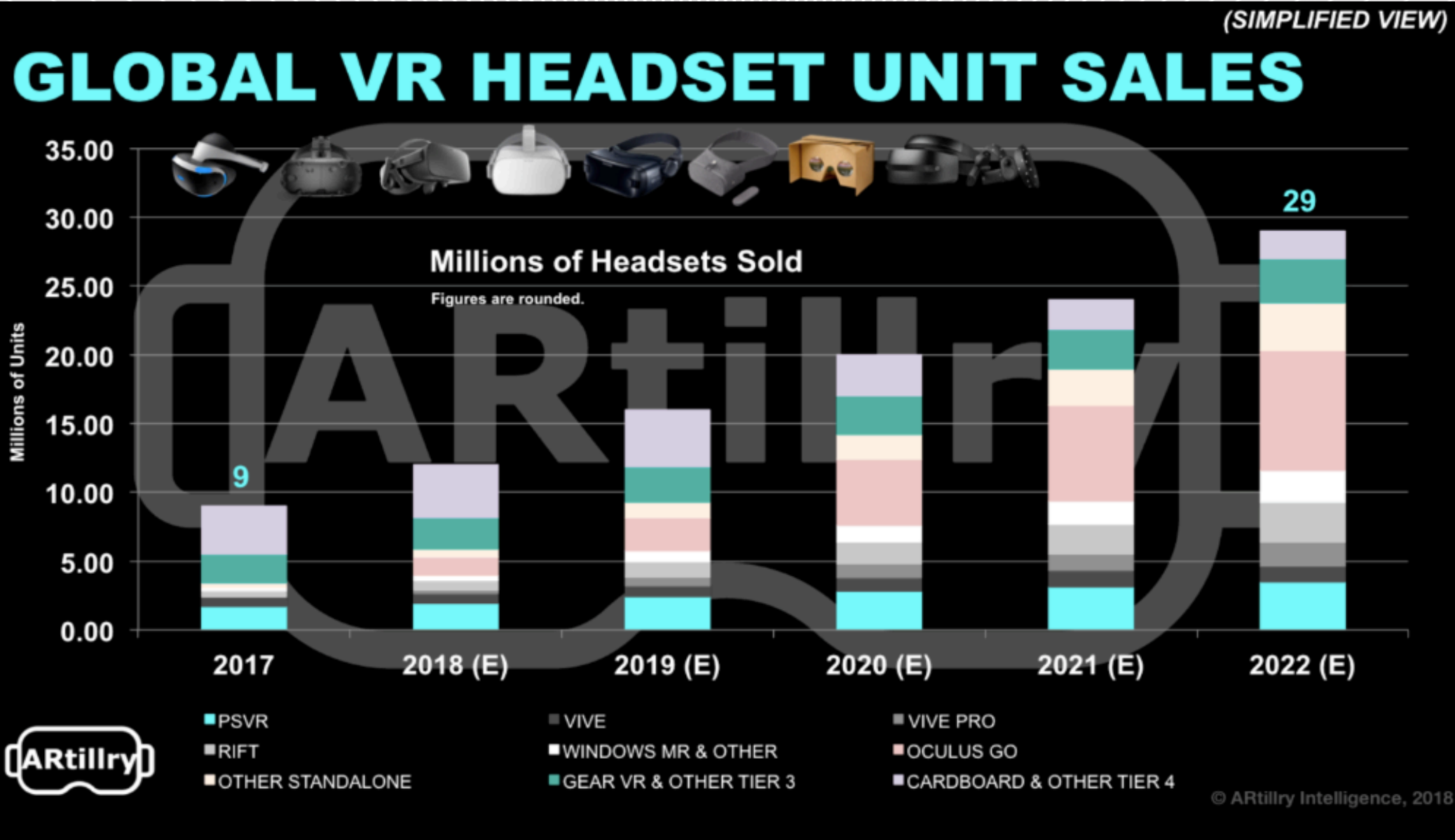
EE= Enhanced Experiences

AI= Artificial Intelligence

VA= Voice Activation

LBE= Location Based Entertainment

Top Gear: better GFX, tracking & more



Where:

MOBILE

APPS

TABLET

HEADSET

DESKTOP

GAMING/esports

ANYWHERE (LBE!)

Who:

NEWS/JOURNALISM
MEDICINE, SCIENCE & NATURE
CHARITY
EDUCATION
TRAVEL
MILITARY
SPORT
MUSIC
FILM & TELEVISION
FASHION
BRANDS & EVENTS

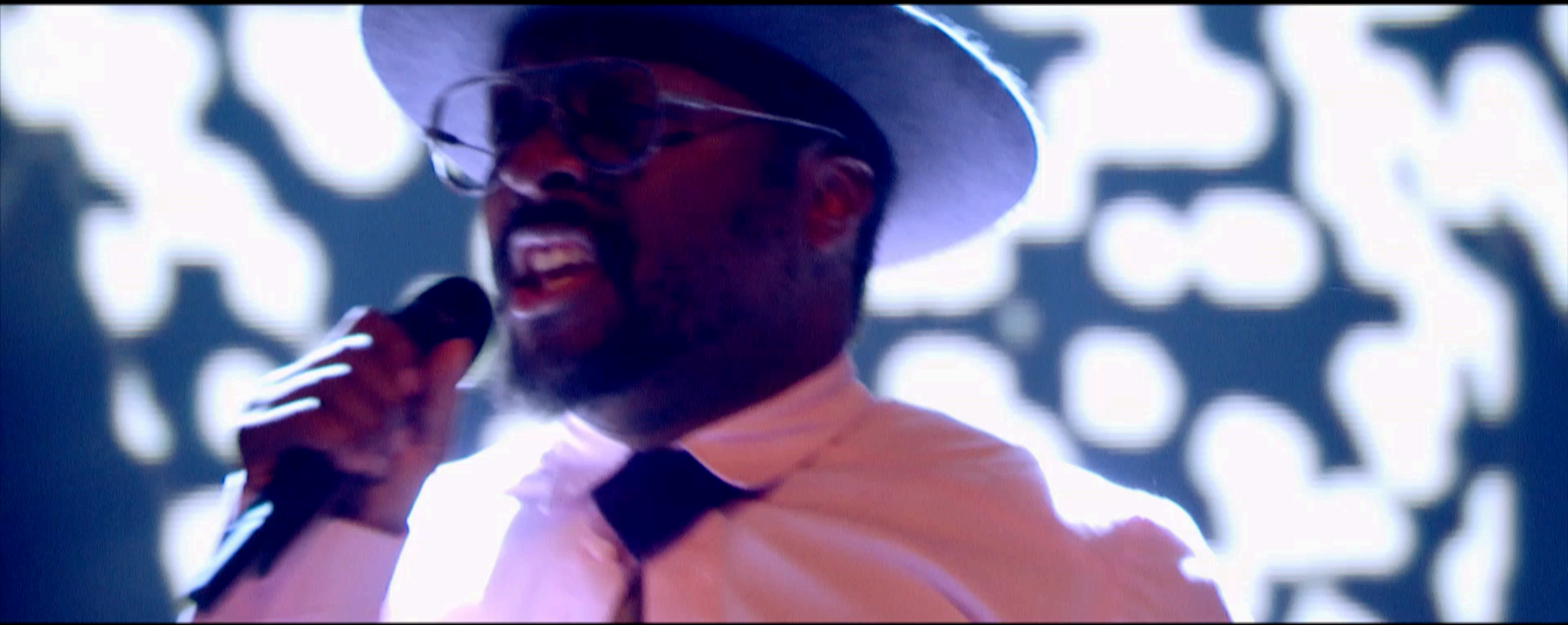
New adventures in storytelling **across media, platforms & industries**

GAMEPLAY – IMMERSION - INTERACTIVITY
EMOTION - INTIMACY - EMPATHY
ENGAGE - RECONNECT- ENTERTAIN
INSPIRE – EXPERIMENT

#ThrowbackThursday
The Virtual Voice



The Voice
UK 360[®]
Virtual
Voice



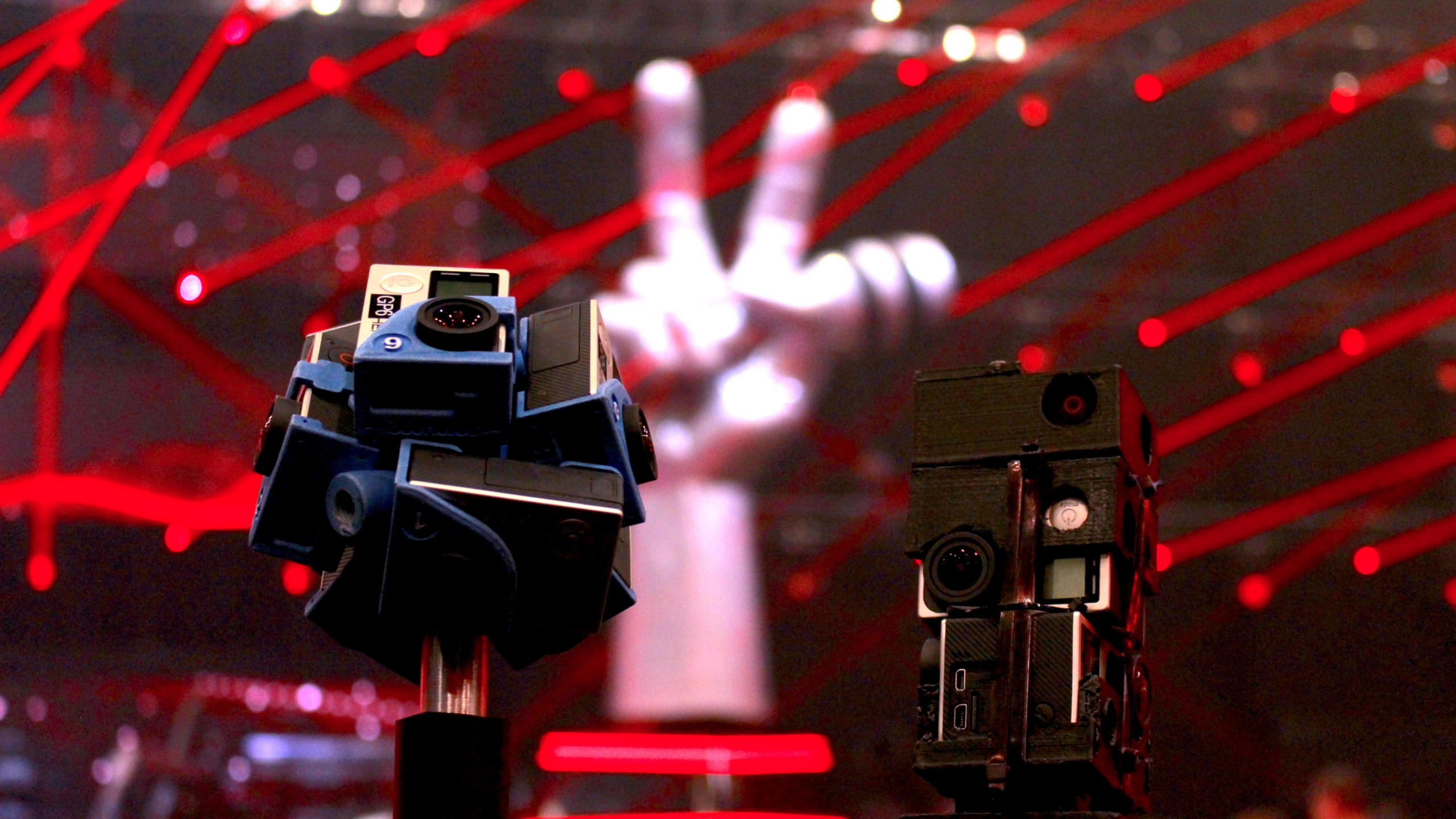
Conquering the unknown: The Mad Scientist approach, 2015

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The logo for BBC TASTER is centered at the top. It features the letters 'BBC' in white on a blue square background, with 'TASTER' in white on a purple-to-teal gradient background. The 'T' in 'TASTER' has a small purple triangle pointing to its right.

BBC TASTER

The fan's voice of VR..

- People loved/wanted more of Ricky & will.i.am
 - The demographic: mainly 16-24 male
- Pilot accessed mostly via their mobiles & The Voice App
- “Some confusion at first, but most fans got it & enjoyed it”



will.i.am

5 February at 22:07 · 🌐

Check out this Virtual Audition for #TheVoiceUK!
Brought to you by BBC Taster

<http://www.bbc.co.uk/taster/projects/virtual-voice-audition>



👍 Like 💬 Comment ➦ Share

Gadget Man, Araz Muradyan, Patrick Alexandre Morella and 1,864 others like this.

Top Comments -

30 shares



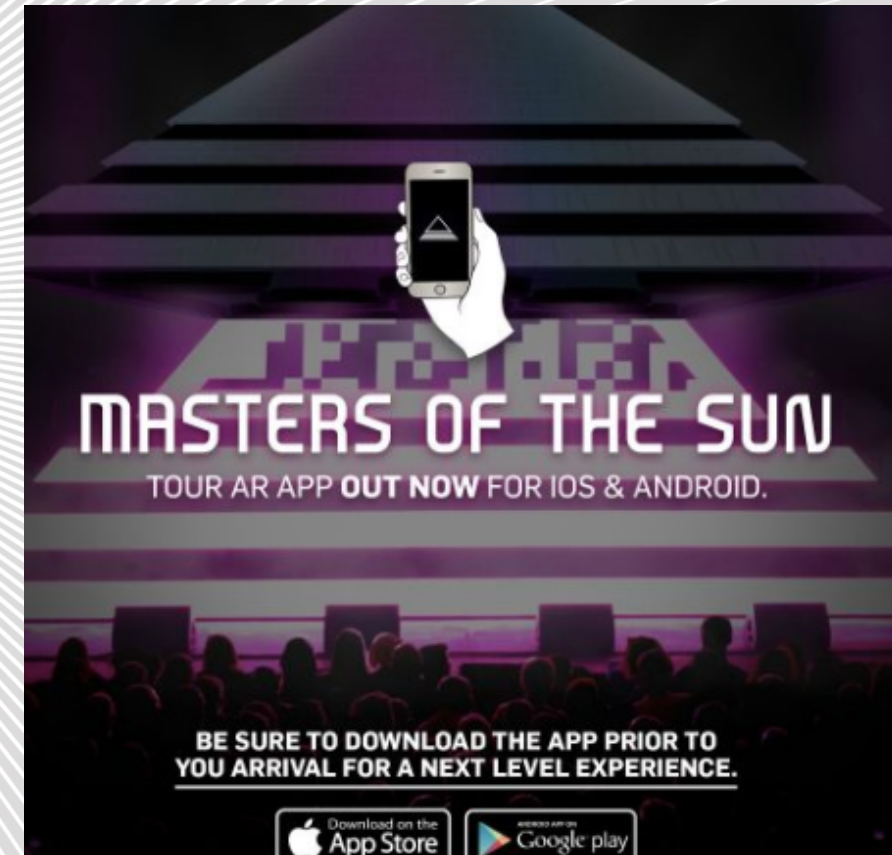
The Present



Black Eyed Peas & Marvel Comics – all platform, enhanced experience

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114-page afro-futurist graphic novel via Marvel Comics, with app/ AR experience, V/O from rap legends like KRS-One, Rakim, Queen Latifah, Common and Stan Lee (RIP)



NIANTIC's "Harry Potter: Wizards Unite" 2019

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Images by Tommy Palladino/Next Reality

\$100 Million - Projection by mobile research group App Annie of how much "Wizards Unite" would make in its first 30 days

400,000 - first-day installs in the U.S. and U.K. for "Wizards Unite", an estimated \$300,000 in revenue, yet only about 5 percent of the installs that "Pokémon Go" had, and 15 percent of the revenue

7.5 million - day one installs for "Pokémon Go", grossing \$2 million

#104 - The debut place that Wizards Unite earned in the top grossing app charts ("Pokémon Go" debuted at #1)

15 -hours it took "Wizards Unite" to reach No.1 position on the iOS App Store in the U.S.

Experiences to live for? - Magic Leap & Game of Thrones 2019

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**Cinematic VR
&
Immersive Journalism**



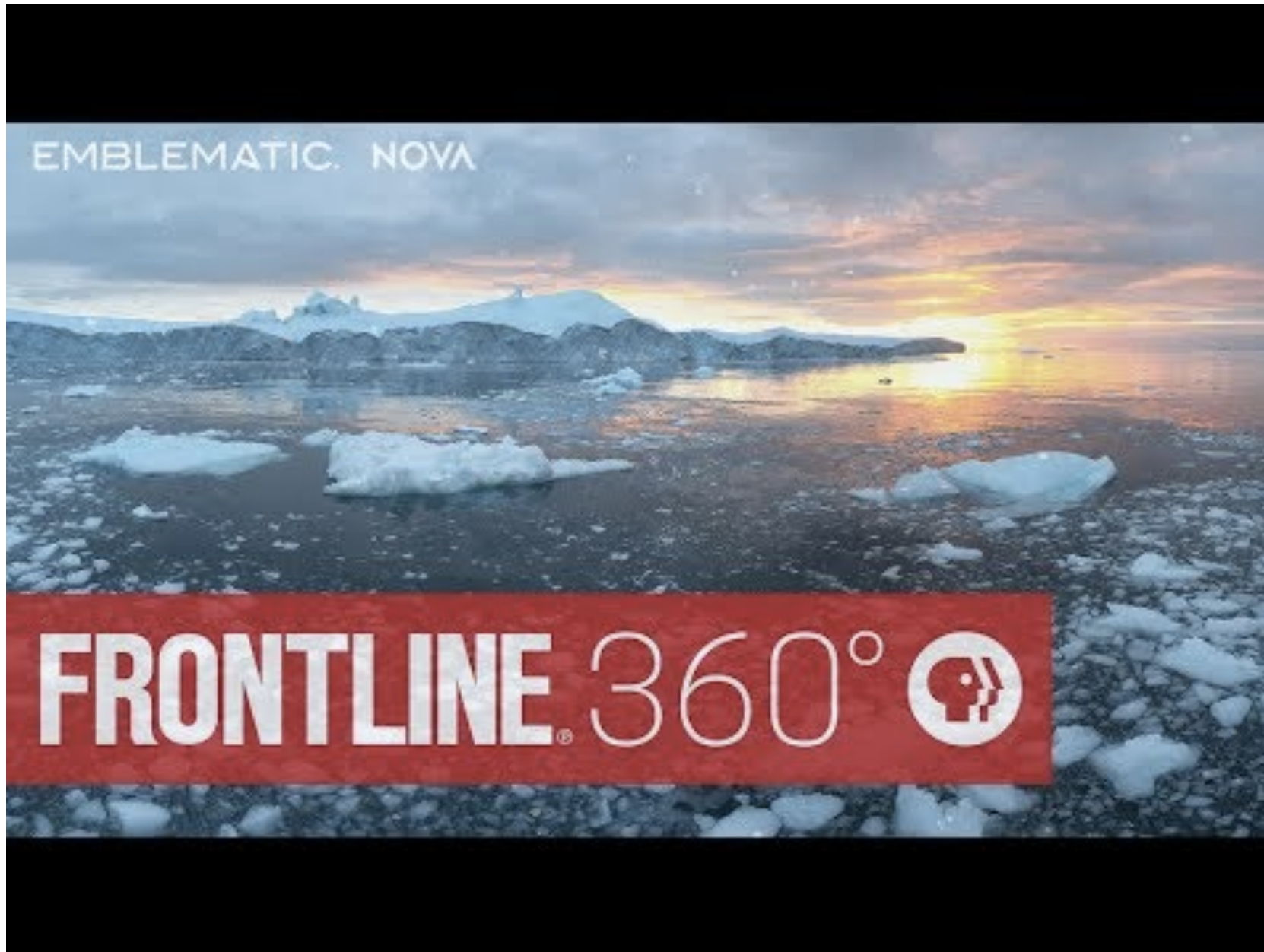
Director Jon Favreau shot the remake of the animated classic inside virtual reality. He doesn't know what to call the result, but it looks like a real movie.

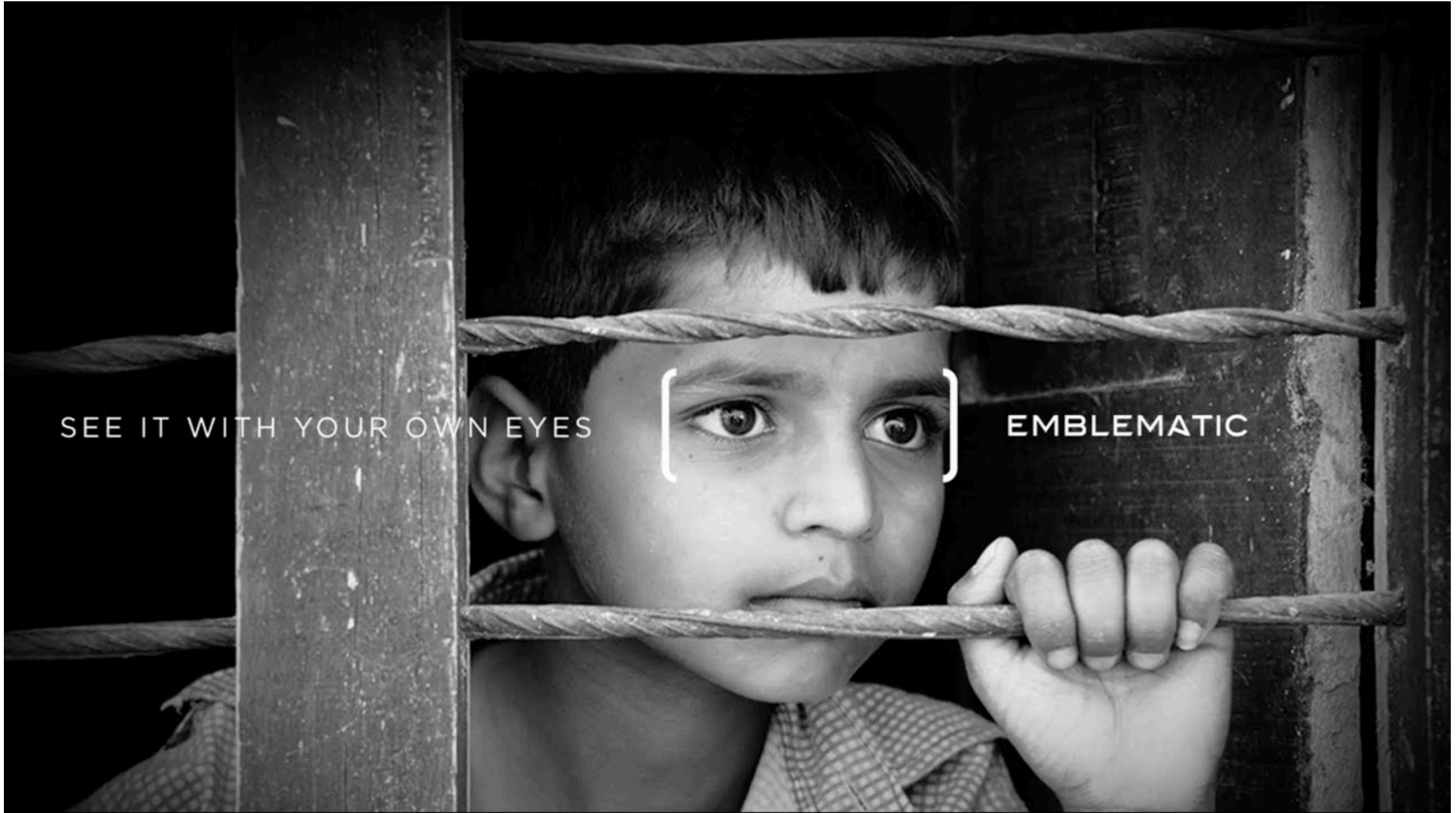
PETER RUBIN CULTURE 06.20.19 06:00 AM

**DISNEY'S NEW *LION KING* IS THE VR-FUELED
FUTURE OF CINEMA**

360VR Immersive Journalism: Emblematic Group, USA

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SEE IT WITH YOUR OWN EYES

EMBLEMATIC

SUNDANCE FILM FESTIVAL 2019

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JAN 24 - FEB 3





VR Content Structure – Question to be solved...

	Film / Theatrical	TV	Digital	VR/AR
Platform Viewing Details	<u>Fixed frame</u> , large screen, 2D & 3D, Captive Community viewing	<u>Fixed frame</u> , small screen, 2D, Non-captive Family viewing	<u>Fixed frame</u> , mini screen, 2D, Non-captive Individual viewing	<u>No fixed frame (FRAMELESS)</u> , 2D & 3D, Captive Individual viewing
Duration & Structure	110-180 mins 60-100 scenes 1-8 shots / scene	22-44 mins 8-10 scenes 1-20 shots / scene	3-60 mins 2-20 scenes 1-4 shots / scene	??? (60secs - 60mins) (15 mins – health advisory for mobile-based VR)
Fiction Content Structure	Primarily stand-alone, marginally serial	Primarily serial, marginally stand-alone	Equal amount of stand-alone & serial content	??? (expected to be similar to Digital)
USP	Larger Than Life, Audio-visual narrative spectacle	Appointment Viewing, Story & Character development	Individuality, High concept, writing-focused, pace is critical	??? (Immersive & interactive is all we know currently)

“360 Degrees of Immersive”... one day!

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HOME

MEMBERSHIP

CHAPTERS

COMMITTEES

RESOURCES

EVENTS

NEWS

MAY 20, 2019

The VR/AR Association Publishes the Universities and Colleges Report with over 40 Institutions that offer Virtual Reality and Augmented Reality Courses and Programs

KRIS KOLO · COMMITTEES, UNIVERSITIES COLLEGES

VolCap, Haptics & Holos (oh my!)

Worldwide Volumetric Capture Stages

Q2 2019



Studio*	Technology
4DViews	4DViews
Creative Media Industries Institue	4DViews
Crescent	4DViews
anonymous stage, Budapest	4DViews
8i Los Angeles	8i
8i Wellington	8i
Softbank Tokyo	8i
anonymous stage, Seoul	8i
Verizon 5G Lab	Evercoast
Verizon Media Studio	Evercoast
HoloCap	HoloCap
Intel Studios	Intel
Jaunt Chicago	Jaunt
Jaunt China	Jaunt
Jaunt San Mateo	Jaunt
Digital Nation Entertainment	Mantis Vision
Mantis Vision	Mantis Vision
Dimension	Microsoft
Metastage	Microsoft
Microsoft Mixed Reality Capture SF	Microsoft
Microsoft Mixed Reality Capture SE	Microsoft
Omnivor	Omnivor
Samsung VR Dallas	Samsung
Samsung VR Mountain View	Samsung
Sony Innovation Studios	Sony
Storyfile	Storyfile
Volograms	Volograms
Volucap	Volucap
anonymous stage, Atlanta	Volumation
anonymous stage, Dallas	Volumation
anonymous stage, Los Angeles	Volumation
Underminer Studios	Volumation



ARCTURUS

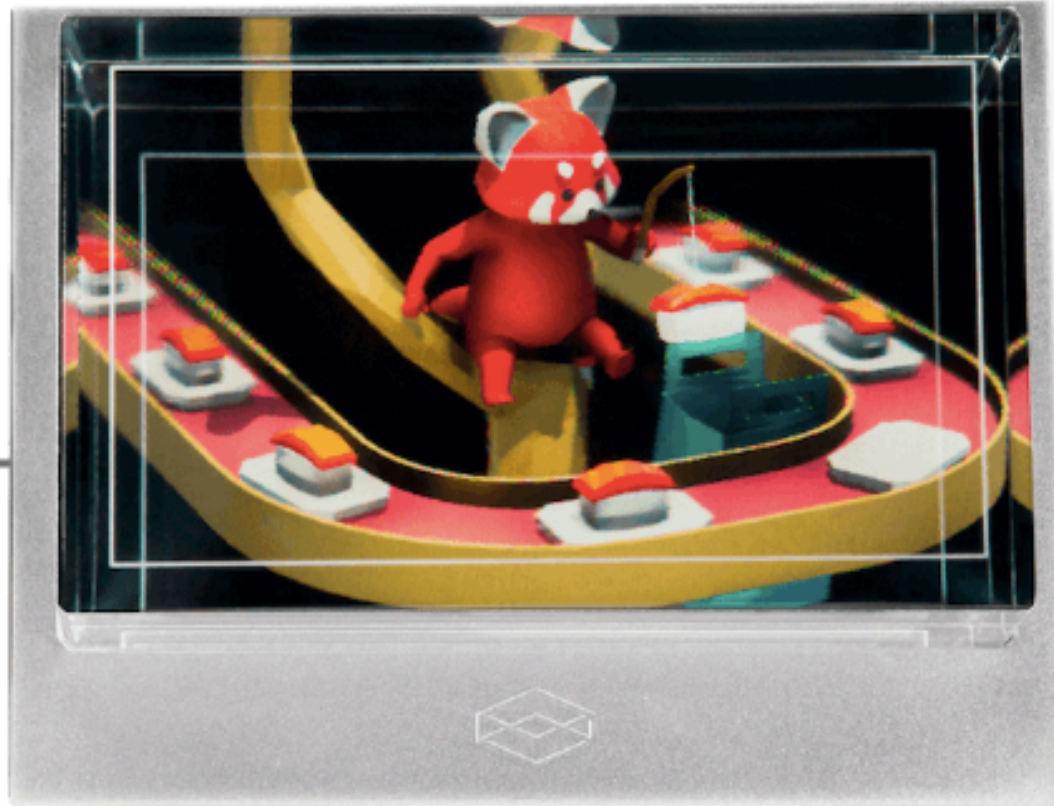
contact: @arcturusXR

Prepared using publicly available information and data provided by capture stages
Does not include portable solutions such as Depthkit, Scandy, and Volumetric Camera Systems

* The 32 capture stages does not include facilities/technologies that are in stealth mode or operate for internal projects only

Looking Glass Factory: 3D Holographic, Volumetric & Lightfield tech – (look mom, no headset!)

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2018

Looking Glass Factory launches the Looking Glass to 3D creators worldwide.

Looking Glass Factory puts the first holographic display on the desks of 3D creators everywhere thanks to the Looking Glass' patent-pending combination of volumetric and lightfield technologies.

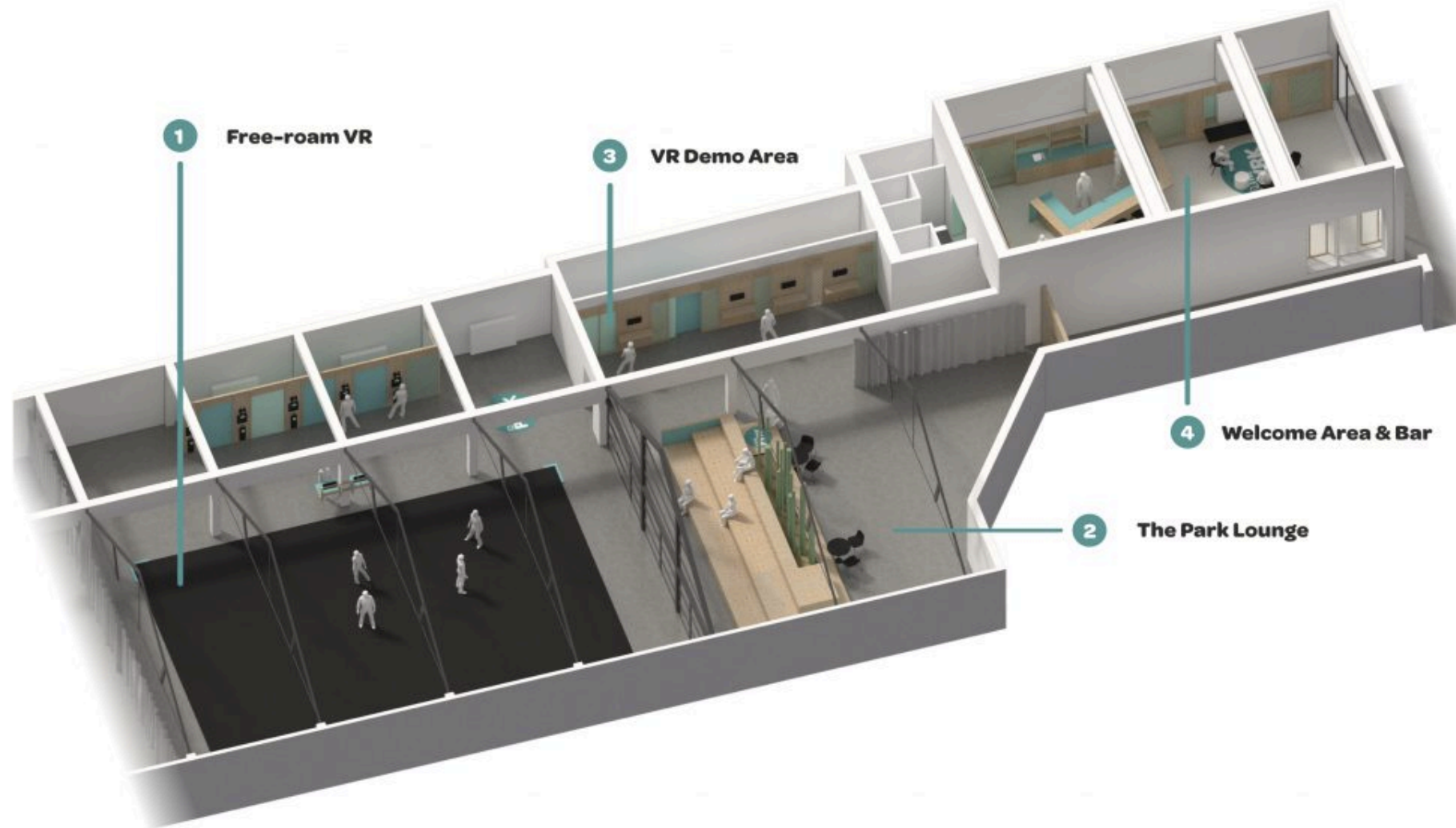
[PRE-ORDER ON KICKSTARTER](#)

LBE

The Park: Free-roaming group adventures- Antwerp, Hasselt, Gent, Belgium @MukiApproved



The Park: Free-roaming group adventures- Antwerp, Hasselt, Gent, Belgium @MukiApproved



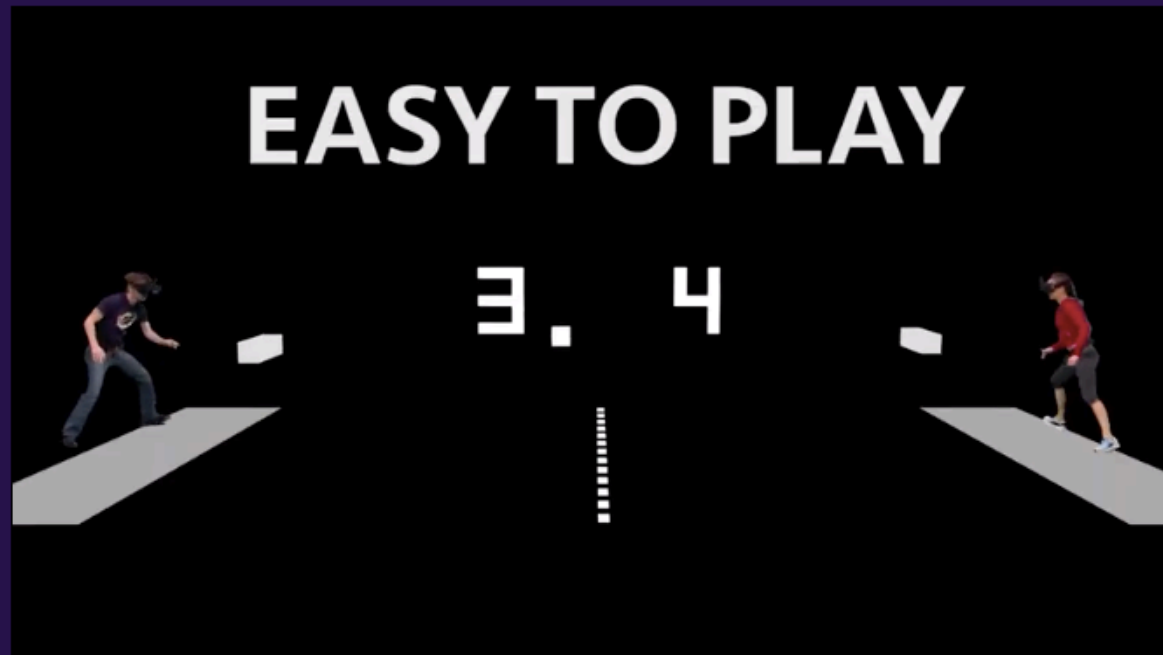




The Edge - Be Brave

VR Experience

An immersive virtual reality experience, entirely developed at Uqido. Some characteristics make it unique and particularly engaging: the senses of sight, hearing, touch, and smell are all involved, and participants are free to move within the play area without any constraint because they are free from cables or similar objects. The narration asks participants to challenge their fears and face their limits, in a crescendo of emotions that make the experience unforgettable.



Zero Wires. 100% Fun. VR for All.



Total Wireless VR Freedom
Incredible untethered multiplayer fun.



Instant Turn-Key Operation
Plug in and add new revenue.



Outstanding Throughput
Unprecedented hourly ticket inventory.



Games Made for Business
Strong replay factor and social fun for all.



Fast ROI
Including fantastic revenue per sq. ft.



Small to HUGE Play Areas
Deploy in 100 sq. ft. or up to 900,000 sq. ft.



Easy Operation by Anyone
Attendent training in just minutes.



Ridiculously Portable
Looks permanent, fully mobile.

VIRTUAL IMMERSIVE ROOMS

The next breakthrough in VR

The commercial virtual reality systems that currently exist in the market have limitations in terms of space and number of users.

The existing advanced systems that generate environments without these limitations are complex and require considerable investment.



VIROO WORKFLOW

To Create Content

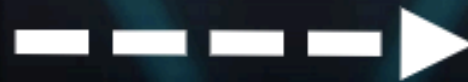


Design 3D Model
CAD 3D models (PIXYZ)

VIROO files



VIROO Plugin



SMART CONTROL

VIROO

Importing Scene



Immotion Agree Three-Year Deal with MGM-Backed VR Studio

Agency Six 14TH JUNE 2019



Audio-AR & Spatial Audio

**LBE: AudioAR 'Consequences':
Immersive, Location-Based, Rap Experience**

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PLAYLINES

Presents

CONSEQUENCES

Written and Performed by Harry Shotta

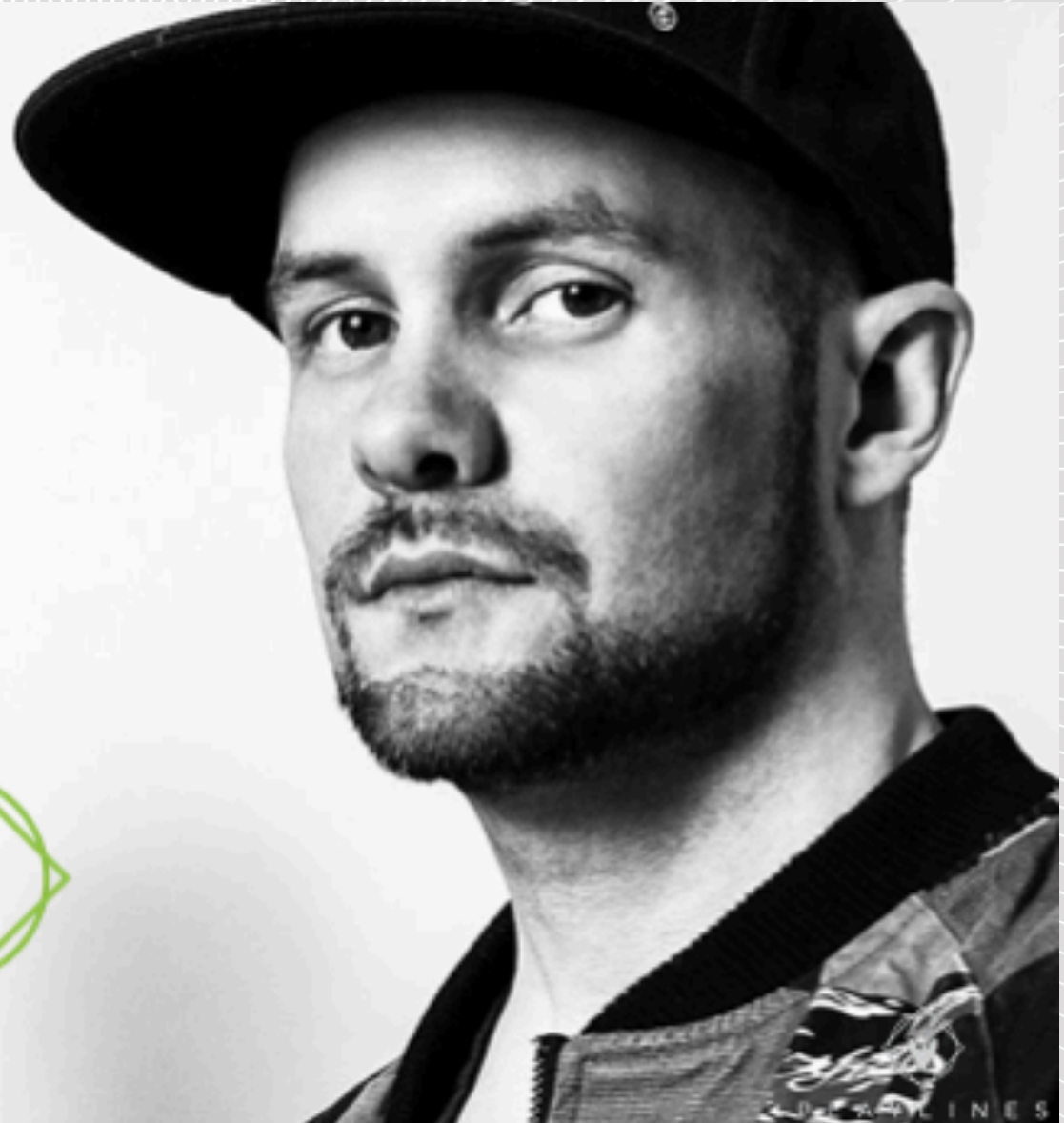
An Immersive Augmented Reality Grime Experience

World Premiere at Future of Storytelling Summit, NYC

Snug Harbor, Oct 3-4 2018. Find out more at playlines.net

CONSEQUENCES AR

- Immersive hip-hop opera
- Choose-your-own-adventure concept album
- Users become a character in the album & decide the ending



Tech Partnership

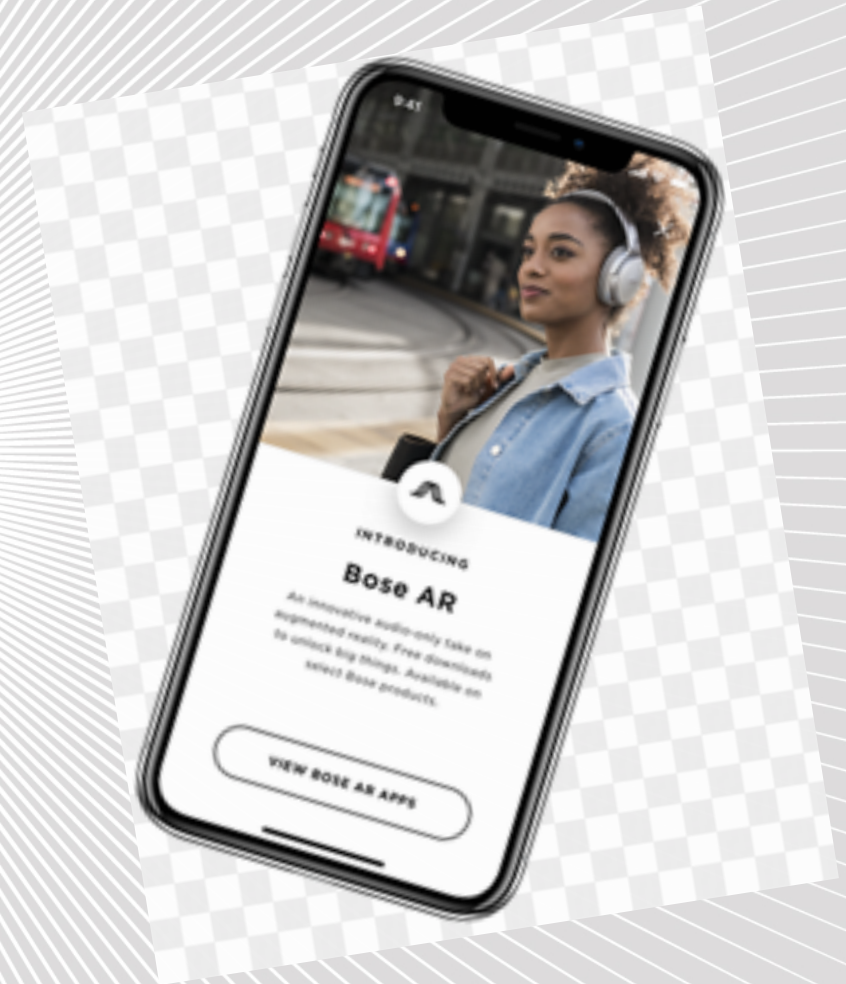


P L A Y L I N E S

BoseAR & 3D SPATIAL AUDIO: immersive, interactive audio glasses

“Heads Up, Hands Free”

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Tech: Spatial Audio

Through our developer partnership with **Bose AR**, we help develop cutting-edge **Spatial Audio experiences** for the next generation of context-sensitive wearables.



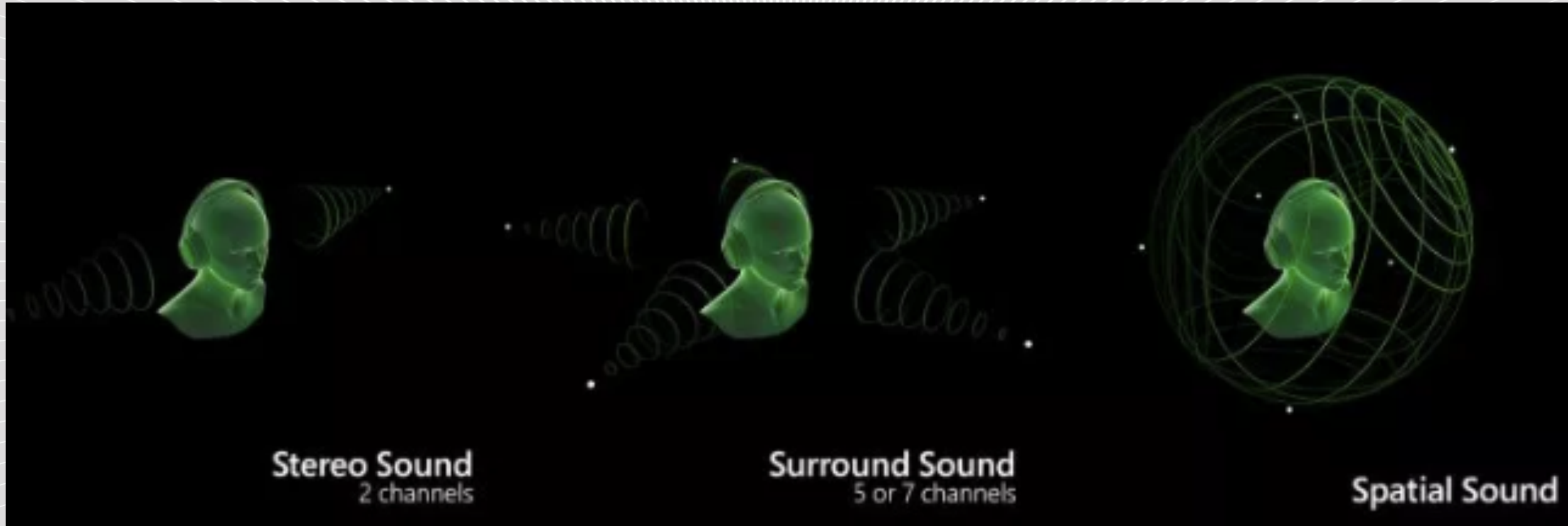
Tech: iBeacons

We use **iBeacons** to locate users and create context-sensitive adventures within festivals or venues. Players might explore by following **ghostly whispers from a venue's past**, or by discovering and carrying 'iBeacon props' imbued with personality.



3D SPATIAL AUDIO- 360 degrees of AudioAR super-surround sound

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Abbey Road Spatial Audio Forum / Abbey Road Red- London, England

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<https://www.abbeyroad.com/spatial-audio>



HELLO, FRIEND!

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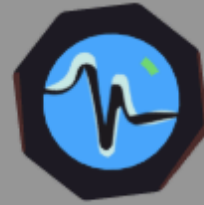


Community & Collaboration: Social XR, Game Engine

MR/XR/Holo: Magic Leap One & The NBA- Live, interactive communities

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Build Sound.

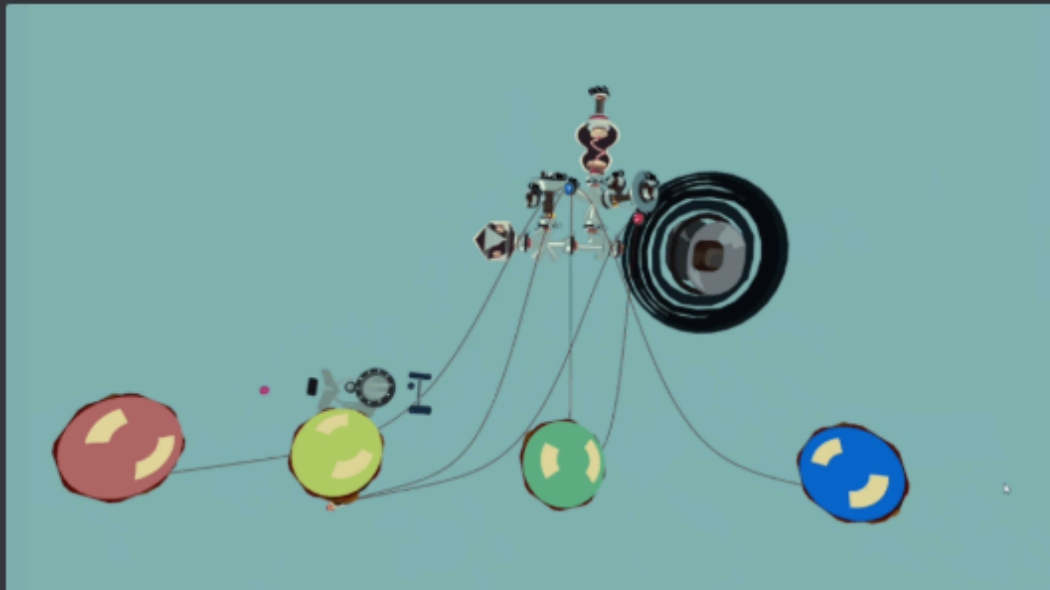
Create modular, musical machines with MuX, the Sandbox Instrument.

[Buy MuX on Steam](#)

[Watch the Trailer](#)

Engineer

SNAP together hundreds of different components into endless different combinations.



Compose

CONNECT wires to build an advanced logical system. A whole new type of programming.



MUX: Music Sandbox for Creation, Collaboration & Community

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Hyperform: “Augmented Creative Collaborative Environment of the Future” @MukiApproved



Squint/Opera, BIG and UNStudio create virtual-reality collaborative design tool

Oculus Quest: Wireless, multiplayer... gamechanger?

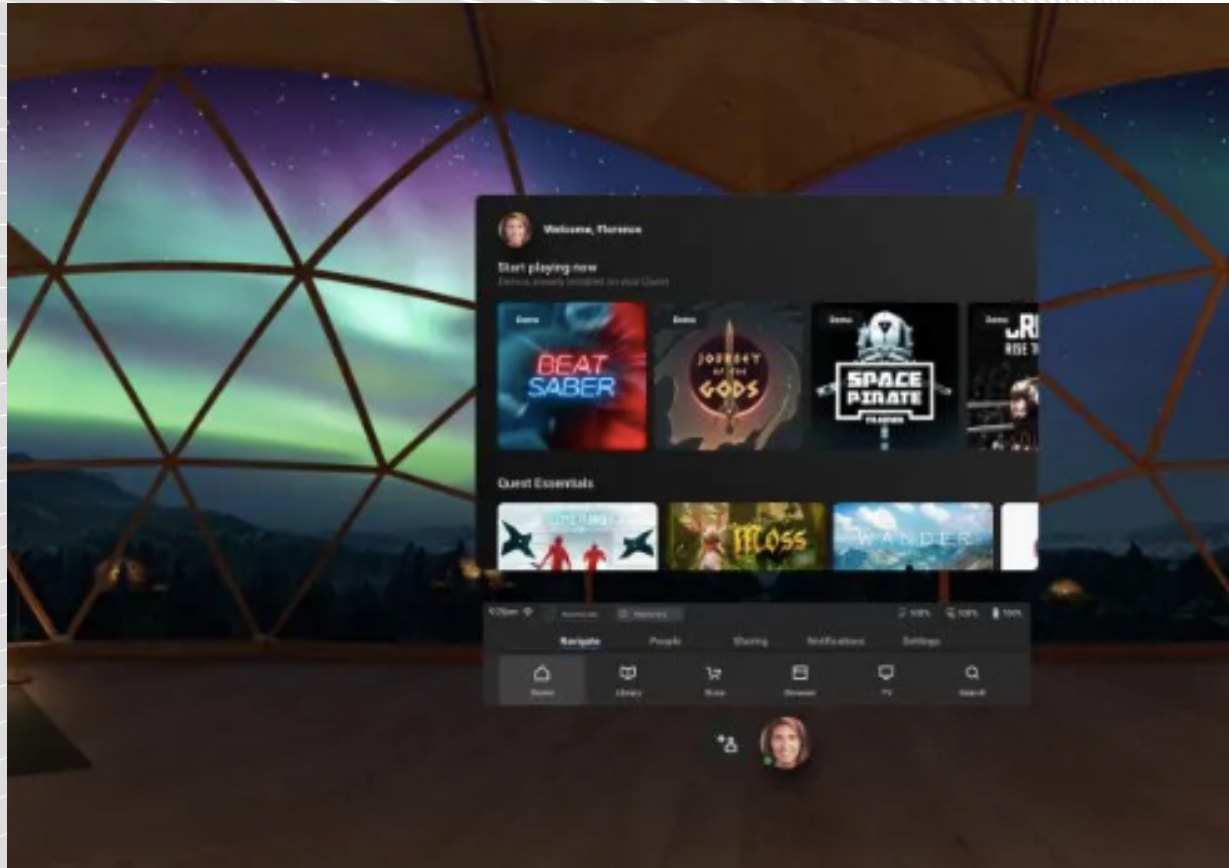
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"Oculus Quest - writing that it represents an impressive merging of next-generation technology and smart design that leads you to stop thinking about the hardware and truly embrace the experience" - [TECH.PINIONS](#) (June 2019)

05.21.19

The iPod of VR is here, and you should try it

Never before have I seen a single technology improve so quickly.



1/7 [Photo: Oculus]

OMG, it's 5G!

5G: Smarter Productions, Smarter Collaborations?

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5G Testbeds: Vodafone Innovation Hub: The Landing, Media City, Salford, England



5G testbed: Deutsche Telekom, Nokia, 'network slicing' June, 2019- Hamburg, Germany

Port of Hamburg 5G testbed reports success

14th June 2019



5G Testbeds: State Hermitage Museum, St. Petersburg, Russia

A night at the museum – with 5G

May 23, 2018

5G

Networks

| #Rostelecom, #internetofskills, #VR

Rostelecom and Ericsson have launched a 5G trial network at the State Hermitage Museum in St. Petersburg, Russia – one of the largest art museums in the world.

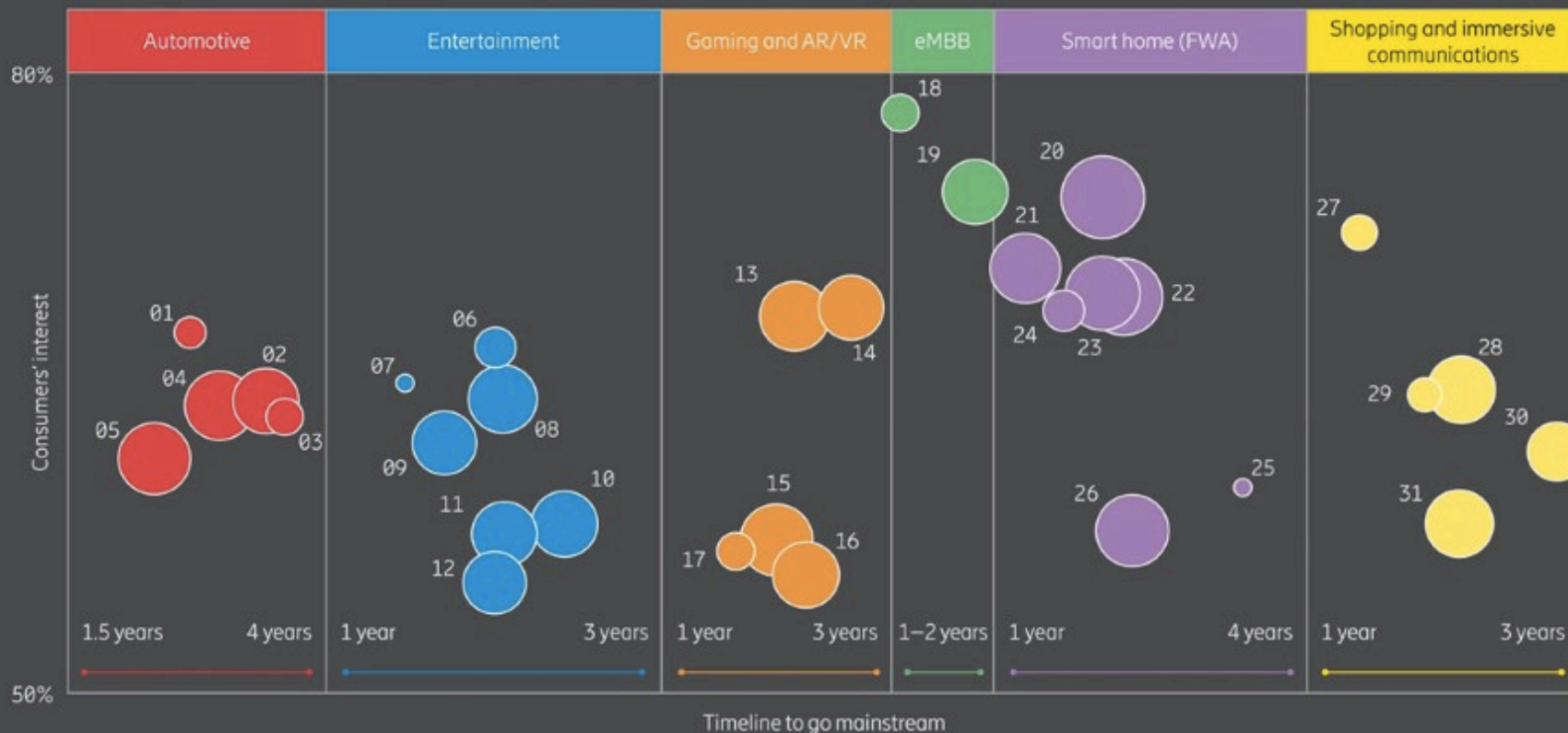


5G Consumer Roadmap by Industry

(via Ericsson's ConsumerLab 5G research May, 2019)

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A consumer use case roadmap to 5G



- Willingness to pay: ● (Lowest, 47%) → ● (Highest, 79%)
- 01 AR windshield
 - 02 AR window
 - 03 Autonomous cars
 - 04 See-through cars with 5G
 - 05 5G in-car entertainment
 - 06 VR cinema
 - 07 Best seat event experience
 - 08 Diorama
 - 09 VR passenger entertainment
 - 10 5G augmented events
 - 11 Arbitrary viewpoint video
 - 12 4K 360-degree action cam
 - 13 AR maps
 - 14 AR/VR learning
 - 15 VR cloud gaming
 - 16 Multiplayer AR gaming
 - 17 Low latency cloud gaming
 - 18 Gigabytes in seconds
 - 19 5G hot zones
 - 20 5G TV
 - 21 5G home wireless broadband
 - 22 Health wearable
 - 23 Home sensor service
 - 24 5G early alarm system
 - 25 Connected robot
 - 26 Sensor-enhanced entertainment
 - 27 Real-time translations
 - 28 Virtual tactile shopping
 - 29 Drone delivery
 - 30 3D hologram calling
 - 31 5G facial recognition payment

Base: Smartphone users aged 15–69 in Australia, Argentina, Brazil, Belgium, China, Canada, Chile, France, Finland, Germany, India, Indonesia, Ireland, Italy, Saudi Arabia, South Korea, Singapore, Thailand, Uruguay, the UAE, the UK and the US
 Source: Ericsson ConsumerLab, 5G consumer potential (May 2019)

The
Future





Doing it for the kids: Integem Holographic AR Summer Camp (from age 2+..!!)



HOME

COURSES

REGISTRATION

FAQ

SIGN IN



Holographic AR Summer Camp

NOW WHAT?

Good Times..

- LIVE & LBE: Immersive Shows, Concerts, Theatre, VR-cades
- BUNDLE UP: Interactive 'Enhanced' bundled, mixed realities
- COMMUNITY: Multi-player, real-time/game engine engagement
- EMPATHY: Holo, Haptics, Therapeutic, Storytelling
- AI / ML: production-techniques & fan creation (fake-off!)
- BIOMETRICS / SENSORY: Eye, face scanning, skin and saliva
- SURROUNDED SOUND: immersive, spatial audio
- WEARABLES & WOWABLES: beyond sunglasses
- 5G: Testbeds, then the real thing
- 6DOF/360Spatial (AI-based): bye bye motion sickness?
- CONTENT GALORE: We build it, they will come

CHALLENGES...

Bleeding Edge Kit & Techniques

SAFETY FIRST

Fickle Audiences

Awareness

Measuring Success

Inclusion

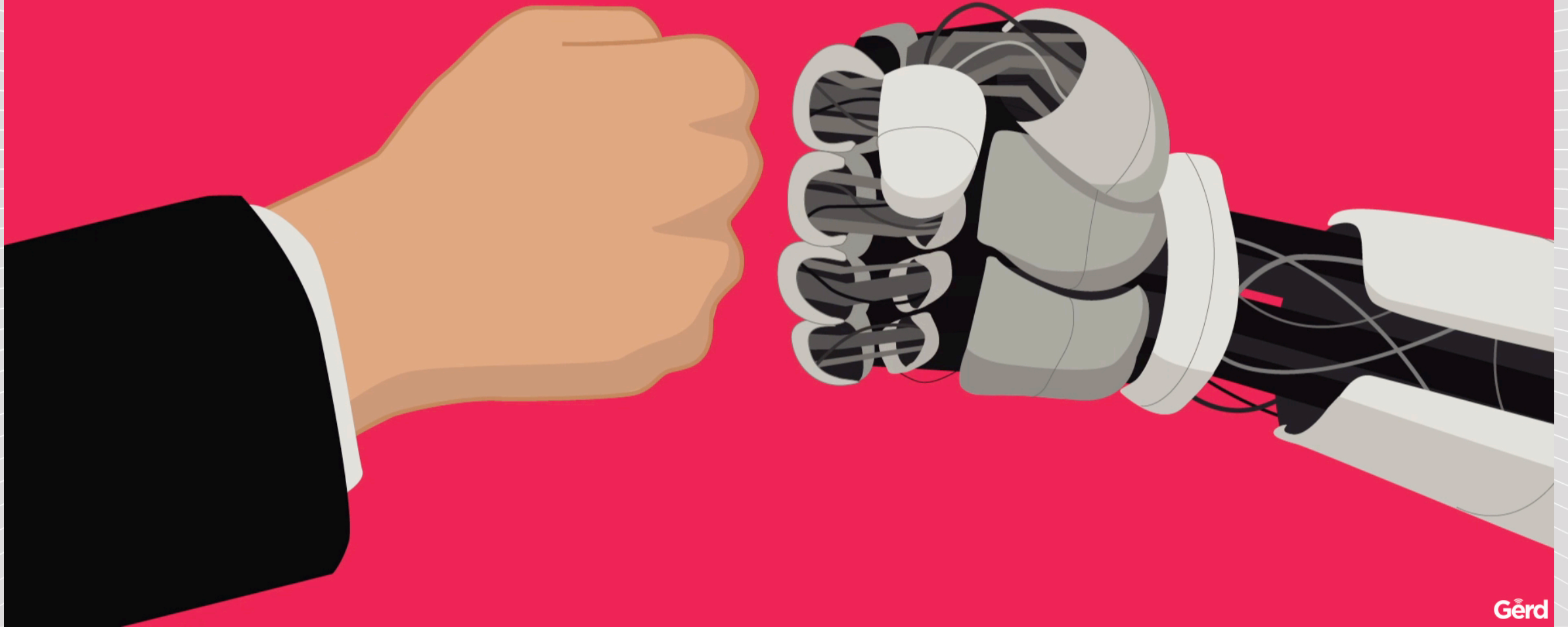
Diversity

Ethics / Responsibility

Content & Experiences

And, most of all...

Finding the right balance between technology and humanity
is becoming essential to our future



**BUT SERIOUSLY,
NOW WHAT?**



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THANK YOU

