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News Events Partnerships

VR, AR or MR – Is The Virtual World More Real Than We Think?

Webinar

Wednesday 18 November 2020





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A Word From Today's Chairman



**Professor Michael
Mainelli**

Executive Chairman

Z/Yen Group



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Agenda

- | | |
|---------------|-------------------------|
| 10:00 – 10:05 | Chairman's Introduction |
| 10:05 – 10:30 | Keynote Presentation |
| 10:30 – 10:45 | Questions & Answers |



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VR, AR or MR – Is The
Virtual World More Real
Than We Think?



Dr Charles King

CEO

Wizdish

VR, AR or MR

Is the virtual world more real than we think?

Implications for individuals & Business



Charles King CEO
ROVR.Systems



Today's Agenda

Definitions : AR, MR and VR

Short history of AR /VR

Deeper dive on VR

Status & Prospects

Q&A

A Quick Poll

Have you ever tried Virtual Reality?

1. Yes, at least once
2. No, never



Intel Vaunt – North
Google 2020

1942 cockpit screen projection



April 2013

Augmented Reality (AR)

technology that superimposes a computer-generated image on a user's view of the real world, providing a composite view



HUD's first deployed in 1958



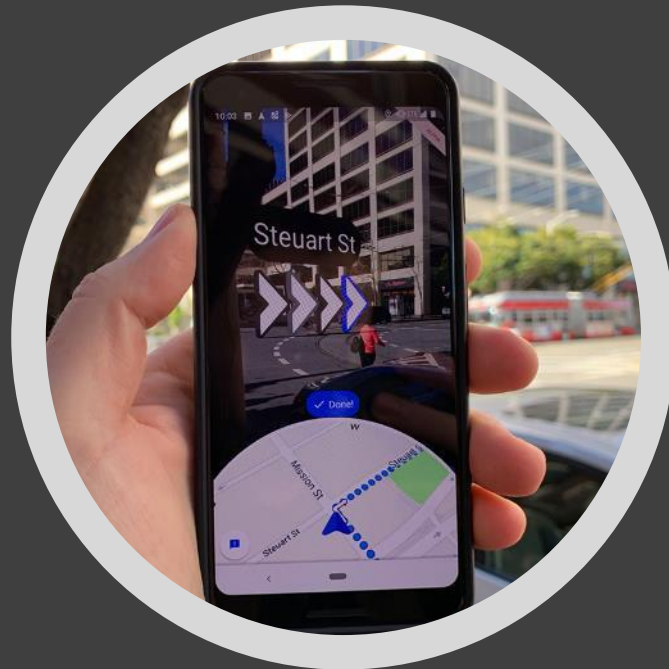
Pokemon

July 2016





Medical
Training & Clinical



Navigation



Google Glass 2
\$999



Vuzix Blade
\$499

Augmented Reality



Magic Leap



HoloLens

Mixed Reality (MR)

Mixes virtual objects with the real world

And

anchors the virtual object to the real world





Mixed Reality Glasses

(\$3500)

Microsoft HoloLens 2
\$480M DOD contract

\$2300

Magic Leap \$2.6bn
invested start-up

- Education
- Training
- Financial trading
- Engineering
- Healthcare



Virtual Reality VR

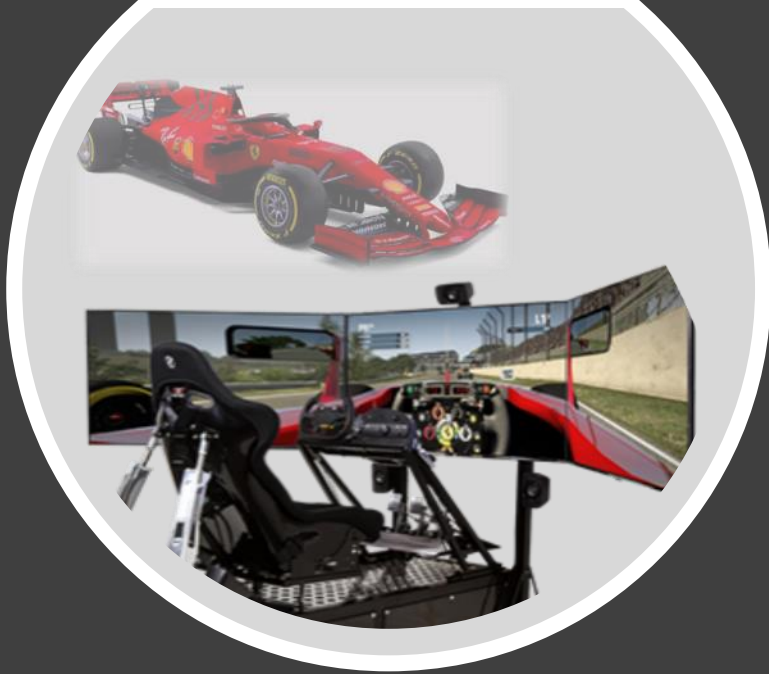
A three-dimensional, computer-generated environment that can be explored and interacted with by a person



That person becomes immersed and part of this environment and can manipulate objects and perform a series of actions

Current VR wave / tsunamis started in 2012





VR simulators
are seated & mediated

Walking in VR is challenging

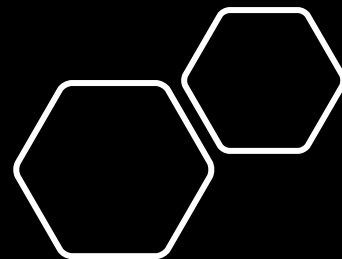
And
it's not just
walking

Turns out ...
our self-intuition on
how our bodies work
is not always good





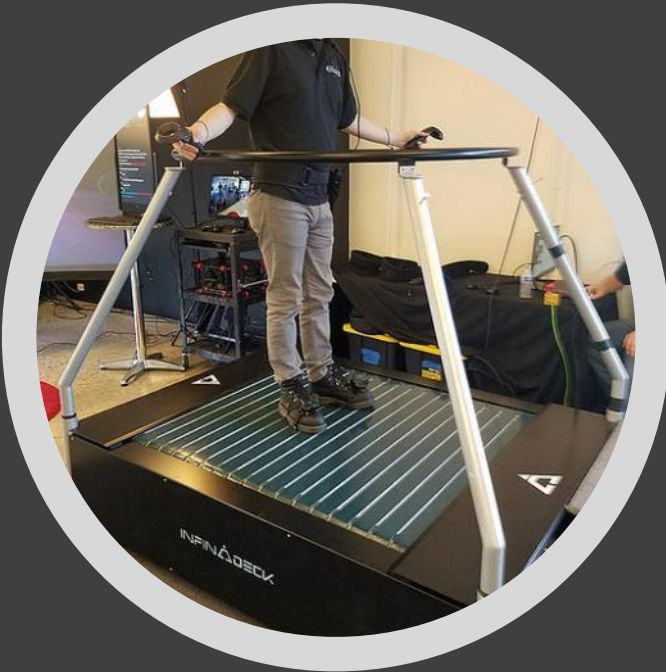
Our brains are data processing centres



highly social

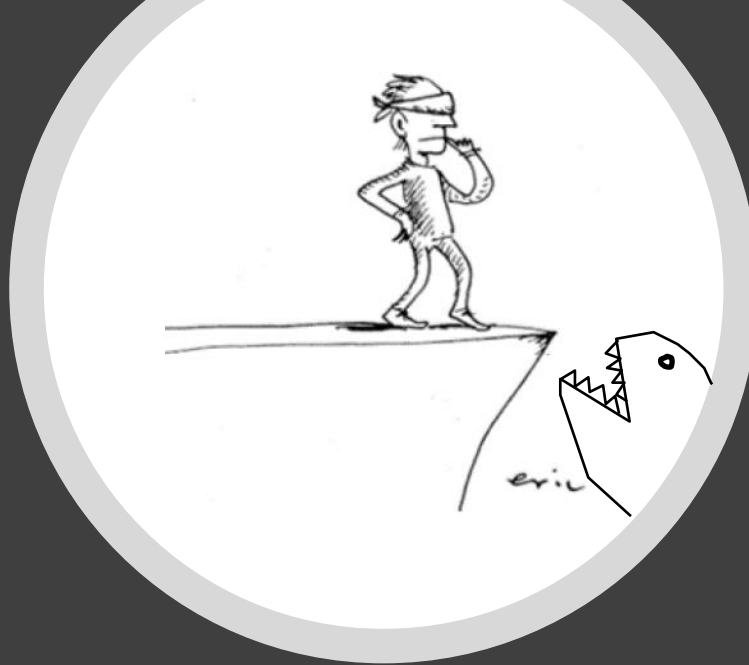
and

primed for survival



Physicality in VR is crucial
Vestibular visual mismatch – simulation sickness
Strangely no-one realised
Do we remember how we move our legs
when we walk?





An easier way to stay safe

2006 BBC TV Centre
Green room



Banking



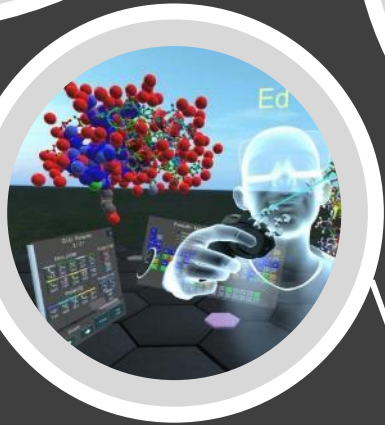
Visualisation



Fortnite Arena



Medical



Visualisation

Entertainment

Distraction



VR's
limitless possibilities!

Photogrammetry



Artist model





“Photogrammetry”

The technology of obtaining accurate data (texture and measurement) on physical objects by interpreting photographs / video.

iPad Pro – lidar

Apple & Android 3d-scanning

*Illustration from Oculus artificialis
teledioptricus sive Telescopium, 1685*



Bom Jesus De Monte

UNESCO site Portugal



Harhriar Shahrabi Sketchfab

Photogrammetry model

test of user visual memory

Social VR walks

horizons vs local



First VR walk over 100m with no chaperones

By 2030:

18 million 65+yrs in UK

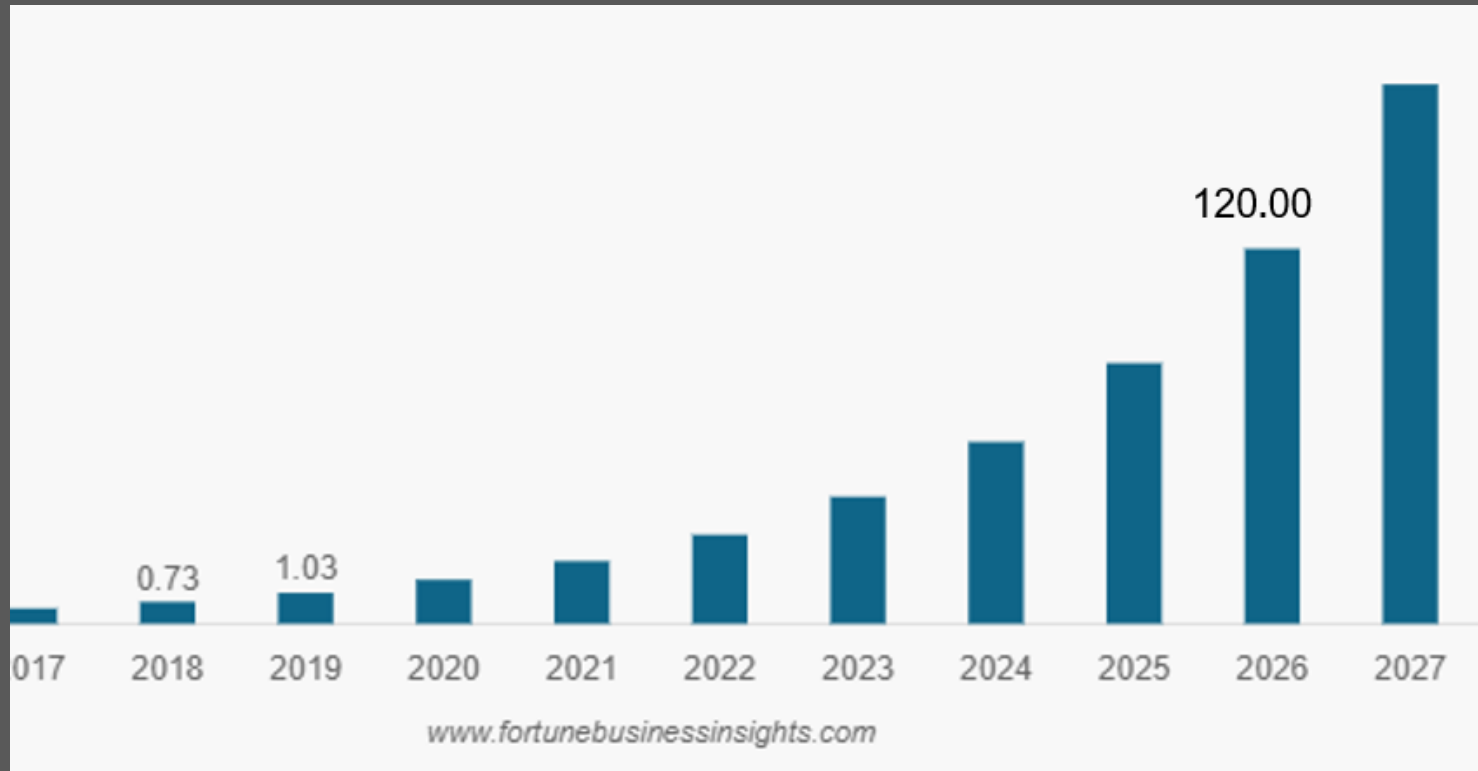
129 million in the USA

Aggregated cost of
Stroke in UK
£25.6bn/annum

Embodied connection
Health & Wellbeing



USA VR Market Size 2016 – 2027 (USD Billion)



World-wide

AR/ VR market \$11.52 billion in 2019

Projected \$571.42 – \$830 billion by 2025

Industry Verticals:

Gaming & Entertainment Media,
Healthcare, Education,
Automotive, Aerospace &
Defense, Manufacturing

Applications:

Training & Simulation,
Education, Architectural
Visualisation & sciences (Covid),
Communication, Gaming
Rehabilitation, Tele-health



Summary

Augmented Reality (AR) 40's tech – well established and proliferating in business and mass market. App library is building

Mixed Reality (MR) – still technology hurdles, devices in commercial use and Apps being developed, but not mass market.

Virtual Reality (VR) – Can replicate, well enough 'The human experience', to generate normal visceral and neurotransmitter responses in users.

Commercial, room-scale applications proliferate.

Real-world capture straight to VR models is being developed.

ROVR VR social walks resolving isolation and connectedness

Pilot project planned ready for investment



Thank you for listening

I hope to have sparked ideas
and
perhaps some questions

Please contact me at:
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Visit our website
<https://rovr.systems>



QUESTIONS & DISCUSSION, ANSWERS?





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- Thursday 19 Nov (11:00) [How To Develop An Ecosystem For FinTechs To Thrive](#)
- Monday 23 Nov (11:00) [Going Paperless: E-Signatures In CEE](#)
- Tuesday 24 Nov (10:00) [What Does Banking Stand For?](#)
- Wednesday 25 Nov (15:30) [Money In The New & Old Testament – The Influence Of Christian Thinking On Finance](#)

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