

## Virtual Neurological Rehabilitation / VR and AR

physio  buddie



## Today's Questions

1. Difference between virtual and augmented reality

4. How well regulated is this area and is there a branch of developing expertise emerging?

2. Growing popularity of using this technology in neurological rehabilitation – why has it taken off and what are the benefits?

5. Is this type of technology more suited to younger clients in your experience and are there particular types of injuries which respond especially well to this type of therapy?

3. Can VR be used to tackle specific barriers in physical rehabilitation?

6. How much of a barrier is cost?

## 1. Difference between virtual and augmented reality

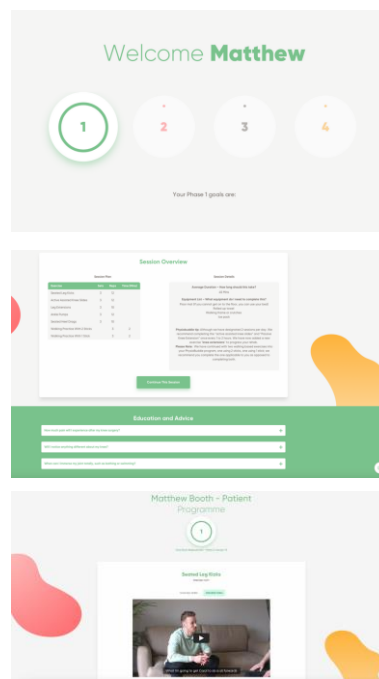
1

VR is an artificial rehabilitation setting for the user.

VR systems can be immersive or non-immersive. High cost and low cost solutions

2

Augmented reality (AR) superimposes a computer-generated image on to the real world.



## 2. Growing popularity of using this technology in neurological rehabilitation – why has it taken off and what are the benefits?

physio**buddie**  Welcome back, Matt (Physio Manager)

**Dashboard**

**Resources**

**OTHER**

**DISCLAIMERS**

**USERS**

**Patients**

**Physiotherapists**

[Create Patient](#)

	FIRST NAME	LAST NAME	EMAIL	PHYSIOTHERAPIST	IS SUSPENDED?	CLIENT IS ACTIVE?	IS ACTIVE?	
<input type="checkbox"/>	Test	Hip	stuart44@hotmail.com	Matt Booth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Stuart	Hall	stuart_hall@ethos.co.im	Matt Booth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Matt	Booth	mattb@physio Buddie.co.uk	Matt Booth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Dan	Stuebler	Dstuebler@hotmail.co.uk	Matt Booth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Dan	Stuebler	Dstuebler@outlook.com	Matt Booth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input type="checkbox"/>	Matthew	Booth - Patient	mattbooth90@gmail.com	Matt Booth	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Virtual clinics and the improvement in home based rehabilitation and monitoring

Gamification / Patients can develop skills in a tailored, safe, fun environment, improve adherence to treatment and rehab.

NHSX, research, ongoing care and social prescribing

### 3. Can VR be used to tackle specific barriers in physical rehabilitation?



- NHSX - Instant access to bespoke fun, engaging care plans.
- Accessed on phone, tablet, computer/laptop, low end VR.



- Digital inclusivity - Meeting the needs of the local population.
- Easy to understand content.
- Clinical and patient centred content.



- We are making progression in to gamifying our PhysioBuddie platform for increasing patient adherence.

### 4. How well regulated is this area and is there a branch of developing expertise emerging?

- NHS - Very well regulated, clear clinical governance and information governance frameworks.
- ORCHA and ETHOS.
- Clinical safety officers, data protection officers for the VR and AR sectors and NHS alike.
- Private sector, very similar and using NHS standards as a benchmark.
- Emerging experts within the field, close working relationships within the industry as it is a new sector. .

**5. Is this type of technology more suited to younger clients in your experience and are there particular types of injuries which respond especially well to this type of therapy?**

1. Increasing patient demand and a reduction in staff capacity
2. Smartphone and tablet use

## **6. How much of a barrier is cost?**

VR / AR doesn't need to be custom made!

Simple/early systems can be cost effective, such as Wii FIT (early models) and XBOX Connect.

NHSX, new digital drive for improving patient directed rehabilitation in the home