







Mindset XR Roadshow Event











Welcome!

Chloe Blewitt & Jill Owens

Housekeeping







Name Badges







Demo Sessions

Wi-Fi













	10.00 10.10	Malagana	Chia - Diamitt Q III Omasa
	10:00-10:10	Welcome	Chloe Blewitt & Jill Owens
	10:10-10:30	An introduction to the Digital Health & Care Innovation Centre (DHI) & the Digital	Joanne Boyle
		Mental Health Innovation Cluster (DMHIC)	
	10:30-10:50	Why trustworthiness, ethics and inclusion matters when using AI	Steph Wright
	10:50-11:15	Abertay University Introduction	William Kavanagh
- 1	11:15-11:30	Comfort Break	
822.00	11:30-11:45	Mindset XR Programme Update	Jane Guest
	11:45-12:05	Procurement in Scotland	Gary Robinson
	12:05-12:25	Gamification in Healthcare	Brian Baglow
	12:25-13:25	Lunch	
	13:25-13:45	TendVR: Keynote Speaker Session	Matthew Hoad Robson
	13:45-14:05	XR Regulations	Paul Chapman
	14:05-14:30	Panel Introduction	All
	14:30-15:30	Panel Discussion	All – Chaired by Joanne Boyle
	15:30-15:35	Closing Remarks	Chloe Blewitt
	15:35-17:00	Networking & Demo Sessions	











Mindset XR Programme: 2022 – 2027

jane.guest@iuk.ukri.org Innovation Lead

Healthy Lives Aim
"Helping people to live well throughout the life course in mind and body."



Image: Freepil

Healthy Lives



Scene Setting

- Aim
- Approach







Mindset: Tackling a key societal issue

Inspired by XRHA paper 'Growing value of XR in healthcare'

Key Findings from NHS England Survey, 23/24:

- 1 in 5 (20.2%) adults (over 11.5 million) in England had a Common Mental Health Condition (CMHC)
- Young people were more likely to have an CMHC than older adults with prevalence in 16 – 24 yr olds rising to 25.8%
- Prevalence of severe MHCs has also increased by 11.6%
- Prevalence of CMHCs is **higher in the most deprived areas** (26.2%) than in the least (16.0%)
- Yet only 44.6% adults are receiving treatment*
- Increasing demand + not enough clinicians = digital opportunity
- out Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2023/4

UK-WIDE ISSUE

Nation	Prevalence (Adults, %)	Treatment Rate (% of those with condition)
England	20.2% (16–64, 2023/24)	43.5% receiving treatment (2023/24)
North ern Irelan d	18–26% likely affected	40% of diagnosed cases received treatment
Scotland	11.3% (long-term condition, 2022)	Approx. 20% on antidepressa

Wales

KEY QUT-TAKE

No specific

20 – 25% UK population have a MHC and

not even half of them are being treated
www.healthinnovationnenc.org.uk



Addressing with a holistic approach

Overall Programme Budget £20m

Delivered 3 Workstreams, 2022 – 2027:

1. Grant funding for **Collaborative R&D** projects, inspiring partnerships between academia and industry

2. Investment Partnerships to boost government funding and stimulate future investment

3. Partnering with Health Innovation Network, South London to deliver the **Mindset XR** - **Innovation Support Programme** (MISP), to optimise results by stimulating:

- Knowledge sharing (expertise)
- Networking and collaboration (partnerships)
- Adoption and scale (connections)

Supports both projects and the wider ecosystem

Health Innovation
North East and North Curto deliver maximum economic and social impact



Healthy Lives



Delivering Impact

- Impact Timeframe
- Mindset
- Projects

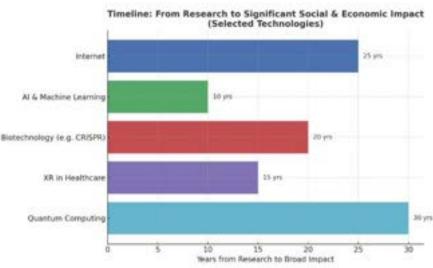




Tame: From research to impact

- Many studies conducted
- 10 20 years for broad tech impact
- 1. Griliches (1957, 1992)
 - Showed that new technologies often take decades before reaching widespread economic impact.
- 2. Comin & Hobijn (2004, 2010)
 - Highlight that major technologies (electricity, telephone, computers) take 10–30 years from invention to broad adoption across economies.
- 3. OECD and World Bank reports
 - Emphasise that R&D and innovation investments typically take 10–20 years before showing clear
 ealth Innocoon omy-wide benefits.





KEY OUT-TAKE

Takes 15 years for XR to deliver broad impact in healthcare, but 'we' are already seeing this!

www.healthinnevationnenc.org.uk



3 Years in, Mindset impact so far...

- Funded & supported 70+ UK wide SME led projects, including final cohort of 17
 - 30 Feasibility
 - 40 Industrial Research
 - 4 Investment Partnerships
 - 80% projects address low social economic groups
- Stimulated ecosystem, growing no. of applicants
 - £3m MR1 2022/23: 46
 - £3.2m MR2 2023/24: **103**
 - £3.6m MR3 2024/25: **136 (196% inc.** over 3 years)
 - £1.8m Investment Partnerships: 150% inc. across 3 comps
- Innovation progressed from treating wellbeing to SMIs
- Over 63 additional jobs created across 32 projects reporting

• Hear Imprivate and further funding raised by 13 projects reporting North East and North Cumpris High performance MISP achieving NPS 9 and so much more!





First VR-MBCT course to be deployed in the NHS - just three years after their first study

• Tendivine Researching Colesign in gazind ad elivering

VR based mindfulness hased cognitive therapy
(VR MBCT) to Mind service users across the UK
EFFECTIVE >50% average reduction in PHQ-9 (depression) and GAD-7 (anxiety) Key stats: 3% (classic 'gold standard' CBT) 1

ENGAGING >80% treatment completion rates (vs. 68.2% classic CBT)²

59% reliable recovery from mental health conditions in latest delivery (NHS target = 48%) moving from clinical to non-clinical level of treatment

MR3 award, focussing on Treatment Resistant Depression





Image: TendVR





- Their digital service supports sustainable mental & physical health habit changes for a wide range of lifestyle risk factors and long-term conditions like anxiety, after extensive co-design with the public & clinicians
- Deployments have taken place with 200+ GP practices across over 18 UK regions
- Holly Health has delivered personalised digital health
 habit coaching to 70,000 UK patients





Observed outcomes in primary care:

30% reduction in GP Appointments (in high service users)

28% improvement in ONS-4 Wellbeing (in people with low to medium wellbeing)

31% increase in Exercise Hours (in people with low to medium exercise)

3.55mmHg Average BP reduction (in people tracking BP) >15x ROI
Estimated ROI
in ICS scale
deployments



And last but most definitely not least...

XR Therapeutics: New VR platform for accessible treatment of phobias and anxiety, self-harm & PTSD

- 7 NHS trusts (took one and a half years to win first contract)
 - 2 charities
 - · Multiple private insurance providers
 - Various services including adult and children mental health teams working in:
 - Prison and probation services
 - Education and CYP services
 - Neurodiversity and learning disabilities
 - Procedural and hospital settings
- The first XR company to be commissioned by an ICB and be included on the NHS Innovation Accelerator
- Health economics report shows savings of up to £21,000 per
 100 patients treated, plus 7 QLYs (quality-adjusted life years)
- Greater Manchester Mental Health Foundation Trust

"It was fantastic, extremely useful for the patient, they progressed so quickly in 2 sessions. I have a patient scared of heights, he went into the session with all those typical physical symptoms associated with anxiety and what we did in 2 sessions here with XRT would probably have taken around 12 without."

- Laura, NHS Therapist

"XRT has changed my perception of how I view all my fears and anxieties and not just the specific phobia I have. I was blown away by the process of the treatment and how quickly it worked for me."

– Patient, XR Therapeutics

www.healthinnovationnenc.org.uk

Healthy Lives



Future Funding

- Context
- Shape
- Optimising Impact







How things are shaping up

Top-level UK strategy supports more investment in DTX for MH:

Government

Economic growth central to Industrial Strategy, with Digital &

Tech and Life Sciences being two of the 8 key UK growth sectors

Health mission focus is on CYP mental health

NHS 10 Year Plan

- Analogue to Digital
- Hospital to Community
- Sickness to Prevention

Life Sciences Plan

- Enabling World Class R&D
- Driving Health Innovation and NHS Reform

Making the UK an Outstanding Place in Which to Start, Grow, Scale, and Invest



www.healthinnovationnenc.org.uk



Catalysing innovation in mental health

Current thinking developed in Aug 24, will need to be reviewed and aligned where necessary to new strategy and SR priorities

- New 4yr programme with comps launching in 2027
- Focus will be on DTx for mental health across the life course utilising creative tech + AI (if applicable & appropriate)
- Thematic areas: Prevention, Diagnosis, Treatment
- CR&D multi-strand comps:
 - Feasibility (TR 1 3)
 - Industrial research (TR 4 6)
 - Experimental design (up to TR 7, 8)
- Investment Partnerships comps, feasibility, industrial research, experimental design
- Contracts for Innovation (SBRI), industrial research (closer to



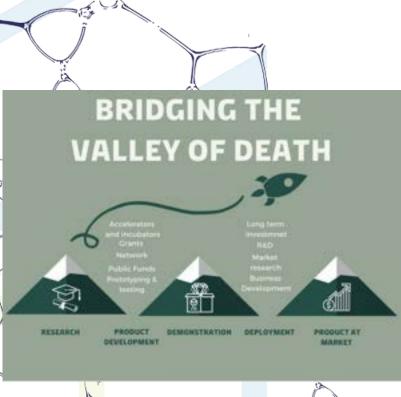
Image: MindTrack 360 (Formerly, Life Process Program)



A community approach, drawing on ecosystem expertise

- Looking at a UKRI cross-council partnership to run a comp focussed on behavioural and culture barriers to determine what's needed for behavioural change - to increase market adoption and stickiness
- Providing a support programme to help optimise project delivery and opportunities to drive adoption and scale (e.g., MISP)
- Partnering with an accelerator to help projects with the most potential to bridge the second valley of death

AMBITIOUS CO-DESIGNED PLAN, DEPENDENT ON STRATEGIC AND SPENDING REVIEW PRIORITIES + BUDGET ALLOCATIONS...
Still an opportunity to shape – let's talk!



www.healthinnovationnenc.org.uk



The Mindset-XR Innovation Support Programme

- Part of the Innovate UK Mindset-XR Programme, which aims to grow the UK's nascent extended reality (XR) in mental health sector
- Funding is being awarded in 3 strands:
 - o **Round 1** 29 projects underway/complete
 - o Round 2 23 projects underway/complete
 - o **Round 3** 17 projects underway

The Mindset-XR Innovation Support Programme, led by the Health Innovation Network South London, aims to:

Support innovators of XR tools for mental health

Stimulate growth of the surrounding ecosystem and community

Scale up promising innovation for spread and adoption

Share knowledge about developing innovation and evidence

It does this by:

- Developing an active community of shared interest and learning
- Providing bespoke support to innovators of XR for mental health
- Convening stakeholders to tackle macro level roadblocks
- Providing a publicly available curriculum to support innovators









Visit www.healthinnovationnetwork.com/resources/mindset-xr-innovation-support-programme































































































An introduction to the Digital Health & Care Innovation Centre (DHI) & the Digital Mental Health Innovation Cluster (DMHIC) Joanne Boyle



2025 Mindset-XR Innovation In Mental Health Roadshow - Scotland



Who are we?

The Digital Health & Care Innovation Centre (DHI) is a **national resource**, **key enabler** and **catalyst for change**, occupying a unique and visible position at the heart of the Scottish innovation ecosystem for digital health and social care.

A world-leading collaboration



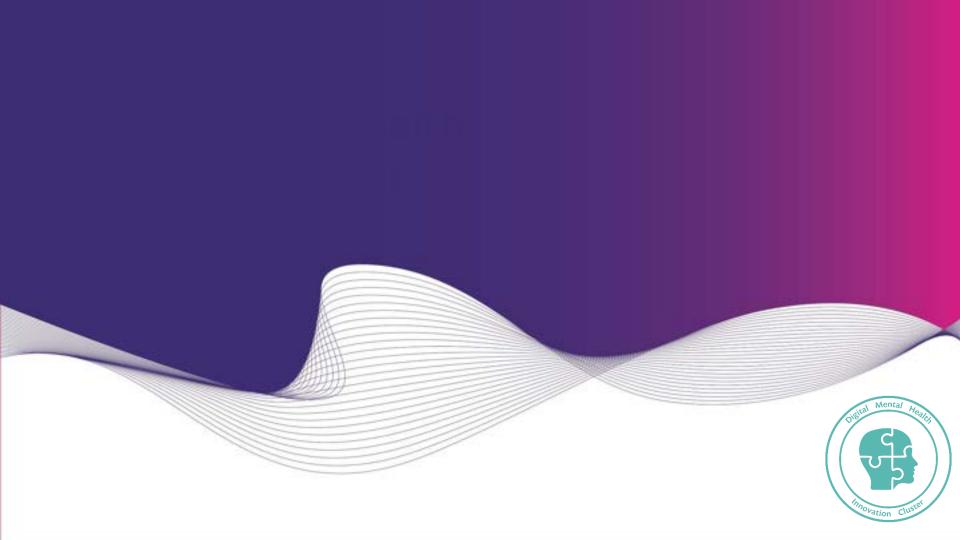
SCHOOL OF INNOVATION AND TECHNOLOGY THE GLASGOW SCHOOL I ARE

Not-for-profit & publicly funded





Our expertise and influence allow us to play a pivotal role in building a fairer, inclusive, accessible, and equitable health and social care system by harnessing the power of Scotland's academic, public, private, and third sectors.



Cluster Overview

• Commissioned by the Digital Mental Health Programme in Scottish government and launched in **March 2022** to support **Action 15.7** of Scotland's Mental Health Transition & Recovery Plan.

"To explore the use of an innovation hub model to encourage identification, development and evaluation of technologies focused on the needs of the population. Developing Innovation Hubs will help support individuals, organisations, academics, and commercial companies to work together to identify, design and develop innovative digital solutions while being guided by expertise within the mental health field including people with lived experience."

• Aims to identify, develop, and evaluate digital mental health technologies and supports individuals, organisations, academics, and commercial companies in innovation.

Innovation Cluster – Purpose & Functions

• Collaboration Hub: Unites policy, health, care, education, research, and commercial sectors.



Digital Mental Health Innovation Cluster



Findings of a desktop horizon scan for Global Leaders & digital innovation opportunities Digital Mental Health report published

DMHIC Launch event

40 Attendees

Emerging Innovations in **Digital Mental** Health A Deeper Dive' Report

6th Cluster Meeting 45 Attendees

Annual Report 2022-2023

Business A&Q 31 Attendees

January 2022

March 2022

June 2022

September 2023

December 2023

February 2024

February 2025

January 2025

1 LE workshop

September 2024

August 2024

June 2024

May 2024

Third Sector in Mapping Supporting the DMH

Ecosystem' Third Sector Event

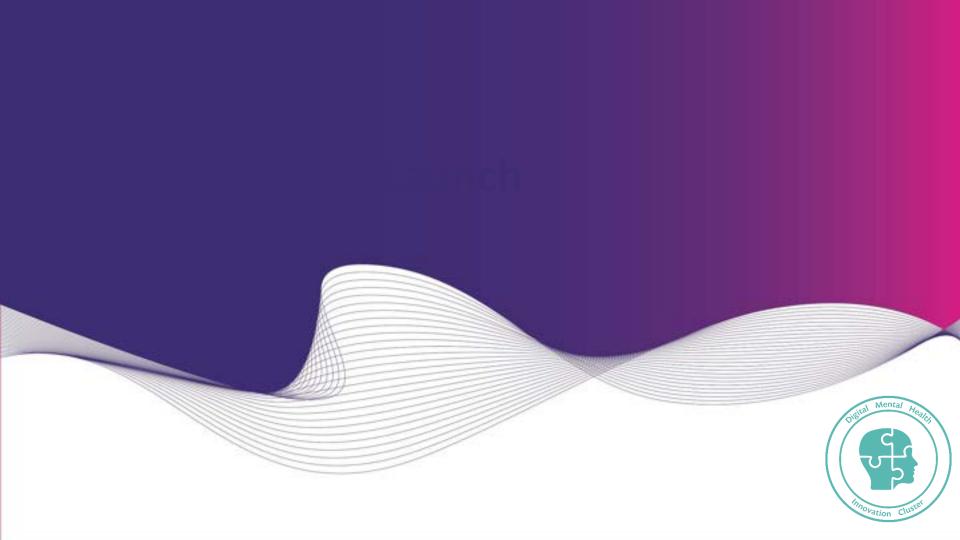
The Role of the ADHD Project Annual **Report** 2023-2024 continues

DMHIC Advisory Workshop Mindset-XR **Innovation** Roadshow

Scottish Event in collaboration with Health Innovation Network -South London and IUK

Adult ADHD Project mapping begins:

- · 2 Clinician Workshops –
- · Evaluating Digital Interventions for ADHD Diagnosis and Management in Adults within the UK



DHI Members Area

We're delighted to share the launch of the **DHI Members Area**, a secure space on our website where network members can access exclusive resources, stay up to date with events, and take part in focused group discussions.

How to Join (DMHIC-specific):

- 1. Subscribe to the https://www.dhi-scotland.com/subscribe
- 2. Complete the Join Our Network (JON) form you'll receive via email. Be sure to tick *Digital Mental Health Innovation (DMHIC)* in the special interest's section.
- 3. Look out for your invitation email and set up your password.

What to Expect Inside:

- Member-only resources and event listings.
- DMHIC discussions and opportunities to connect.
- A simple, professional, and well-moderated online community.

Impactful innovation starts here

Connect with DHI

- Visit our website: <u>www.dhi-scotland.com</u>
- Subscribe to our newsletter:
 www.dhiscotland.com/subscribe
- Follow us on:
 - LinkedIn (@dhiscotland)
 - X (@dhiscotland)

 Scan the QR code to visit: <u>linktr.ee/dhiscotland</u>





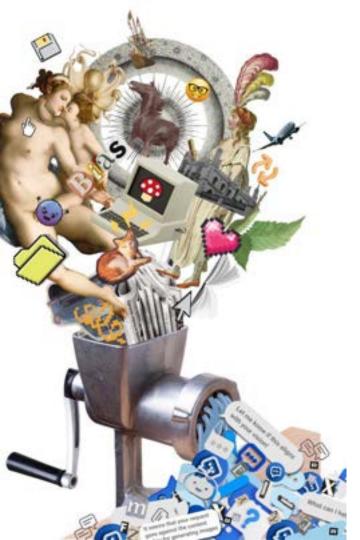






Why trustworthiness, ethics and inclusion matters when using Al

Steph Wright



Why trustworthy, ethical and inclusive matters

Steph Wright, Scottish AI Alliance



Vision

The Strategy's Vision for AI in Scotland is to become a leader in trustworthy, ethical and inclusive AI



Fairer Ensuring that our Values are embedded in our approach to adoption of Al



Greener
Enabling us to make better use of resources and develop new, low carbon industries



More Prosperous

Empowering innovation with confidence building on a foundation of public trust, empowering our workforce and creating high value jobs



Outward Looking
Engaging with global
partners that share our values,
forging partnerships
and contributing to tackling
shared challenges



Scottish AI Alliance

Delivering on Scotland's vision to become a leader in trustworthy, ethical and inclusive AI.

We will do this by:

- empowering Scotland's people
- supporting Scotland's businesses and organisations
- influencing policy affecting Scotland

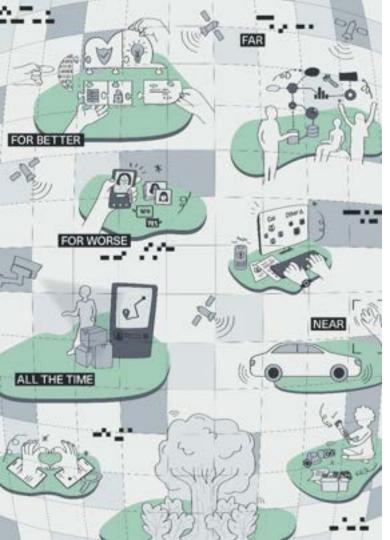


Our Approach

AI has the potential to transform how we live, work and learn for the better.

Let's make sure that is for the benefit of the many and not the few.





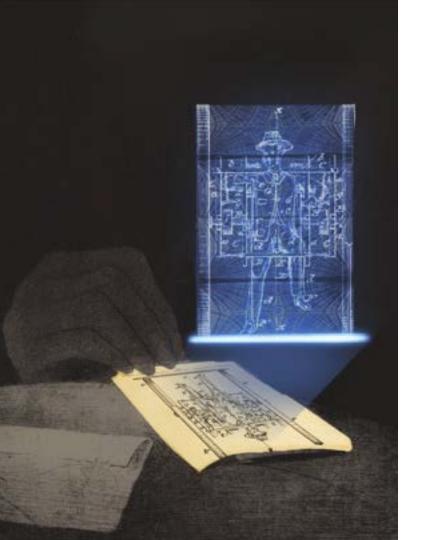
So... why trustworthy, ethical and inclusive matters....





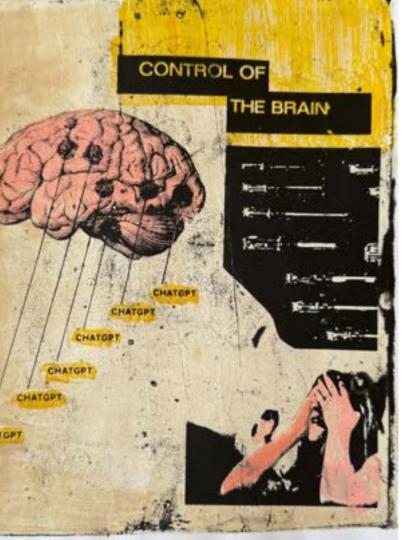
Why "Trustworthy" Matters?





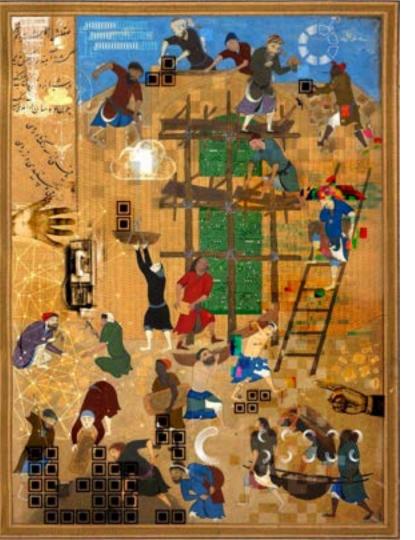
Why "Ethical" Matters





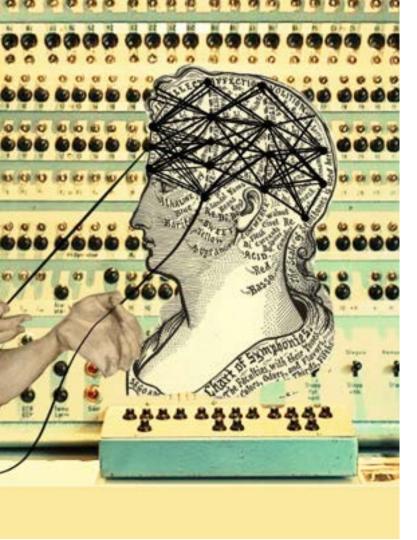
Why "Inclusive" Matters





Trustworthy, ethical and inclusive together





So what now?



Living with Al

A free, beginner-friendly online course designed to introduce the general public to the world of artificial intelligence (AI). Understand how AI is impacting your life, explore its challenges, and discover its future potential.

Find out livingwithai more:





For Individuals

Living with AI helps you cut through the noise, understand AI in simple terms, and see how it fits into your world. No hype, no jargon - just the knowledge and confidence to join the conversation and think critically about AI's impact on the future.



For Organisations

Public and third sector organisations in Scotland can integrate Living with Al directly into their own learning management systems (LMS), delivering Al education in a familiar, accessible environment for their teams.



Free

Explor Resources organised by themes, or dive into our comprehensive library below to discover everything we have to offer.

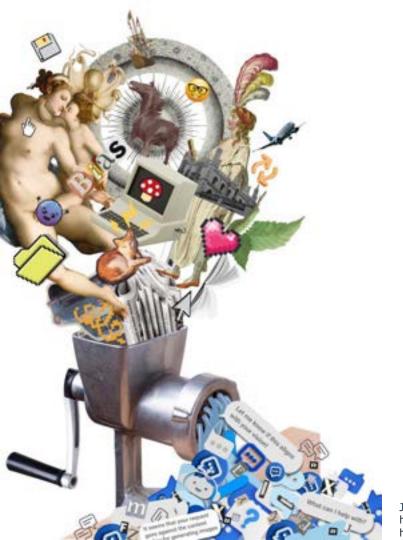


I also want to give a shout out to the fantastic project **Better Images** of AI where you will find a library of images with better representations of AI than blue glowing brains and robots.

betterimagesofai.org







Thank You!

Hello@ScottishAI.com Steph@ScottishAI.com



ScottishAI.com ScottishAIPlaybook.com ScottishAISummit.com ScottishAIRegister.com LivingWithAI.me



Janet Turra & Cambridge Diversity Fund / https://betterimagesofai.org / https://creativecommons.org/licenses/by/4.0/









Abertay University Introduction

William Kavanagh



Abertay University Introduction

Dr William Kavanagh

Lecturer in Games Technology & Mathematics

#BeAbertay

Welcome to Abertay

- Abertay is small and friendly with around 5,000 students (4,000 on campus and 1,000 off campus)
- Scotland's top modern university (Guardian University Guide 2026)
- Top Scottish modern for student experience (Times and Sunday Times 2026) and Top Scottish modern for research intensity (Complete University Guide 2026)









 The first university to offer a games degree and a Centre for Excellence in Computer
 Adames Education

Industry Focus

- We are a dynamic, modern university with a reputation as a leader in technology, an anchor in the community and providing work-ready graduates to industry
- Our research strategy builds on our industry-facing heritage
- Our commitment to working with industry is shown in recent campus developments











Recent Campus Developments

New spaces dedicated to working with industry:

- Cyber Quarter: Cybersecurity R&D hub opened in 2022
- CoStar Realtime Lab: AHRC-funded creative industry studio opened in 2024
- Competitive Gaming Lab: Specialist research facility opened in 2024

Talking about games...











Games in Dundee – by the numbers

9.8% of UK games companies are based in Scotland

- 2.7% of all UK games jobs are here in Dundee
- 1 in every 91 professionals in Dundee work in games. The highest concentration of games professionals of any UK city

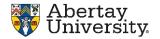
Figures from centreforcities.org, January 2023











Project Spotlight

The Football Memories Project









The My Cancer mAl Care Project







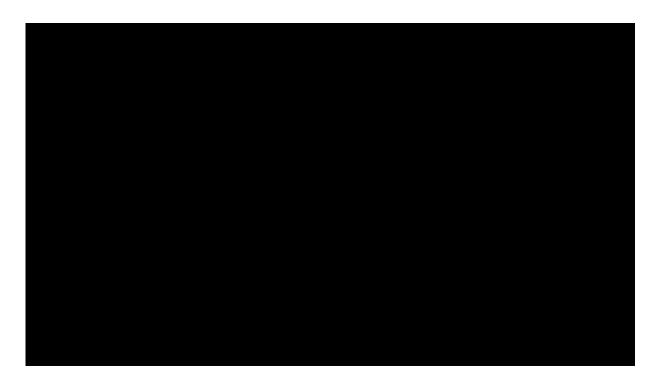


Therapet AR



Praxis Trials





Further recent projects at Abertay

- HeartGuard VR A game for romance fraud detection
- Rhizoma A VR installation exploring connections between people and nature
- RNIB XR Toolkits (Games & GLAM) best practice guidelines for accessible XR development

Coffee Break!

Mindset-XR Innovation Support Programme roadshow evaluation form



















Gamification in Healthcare

Brian Baglow









GAMIFICATION CONCEPT





































































4 /	NAME						ķ
RANK		ID	SCORES	MATCHES	WINRATE	REGION	
					1		
ri 🕙	Player	00285130971	960,883	7,920	92,04%	LOREM	
12	Player	88019463581	902,037	8,918	87,30%	LOREM	1
()	Player	67255137771	871,006	7,840	81,27%	LOREM	
"	Player	00116130348	620,553	2,003	79,03%	LOREM	
"	Player	45185278601	520,972	6,130	71,88%	LOREM	

Serious Games Engagement Loop

Motivation

Player must have motivation to perform an action in the game. 2 Call To Action

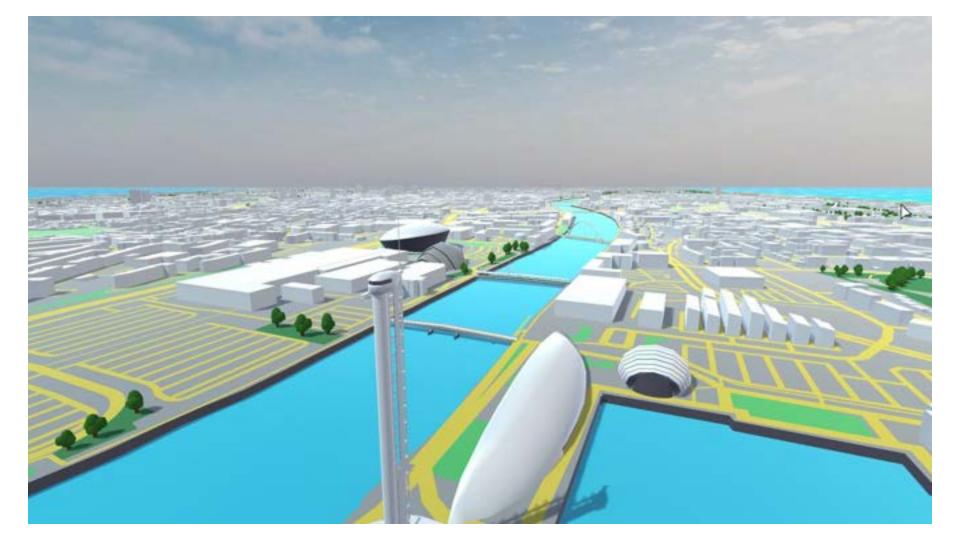
Player is offered a goal or challenge to complete. This goal must compel the player to take action.

4 Feedback

Player gets certain feedback from the action. Game gives the player extra motivation to start a new loop. Player Action

Player must perform and commit to an action, interact with the system.

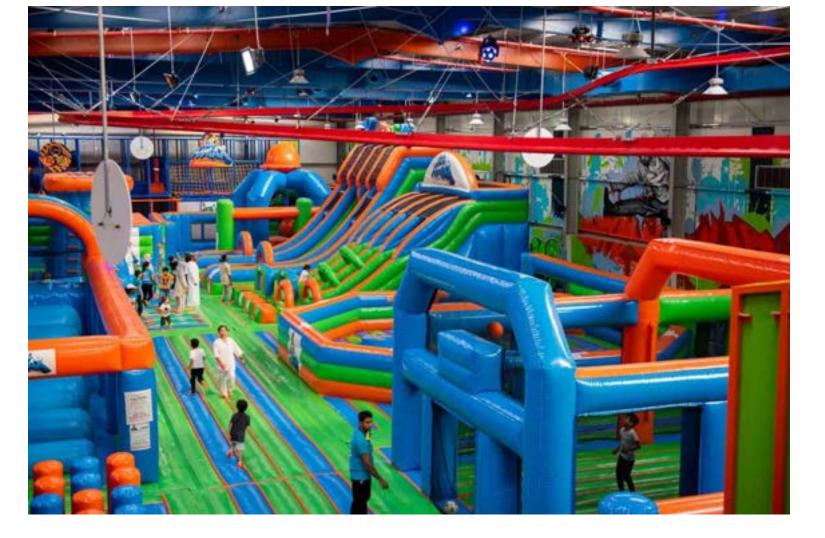
Chaos Theory





(brian.baglow@more-than.games)

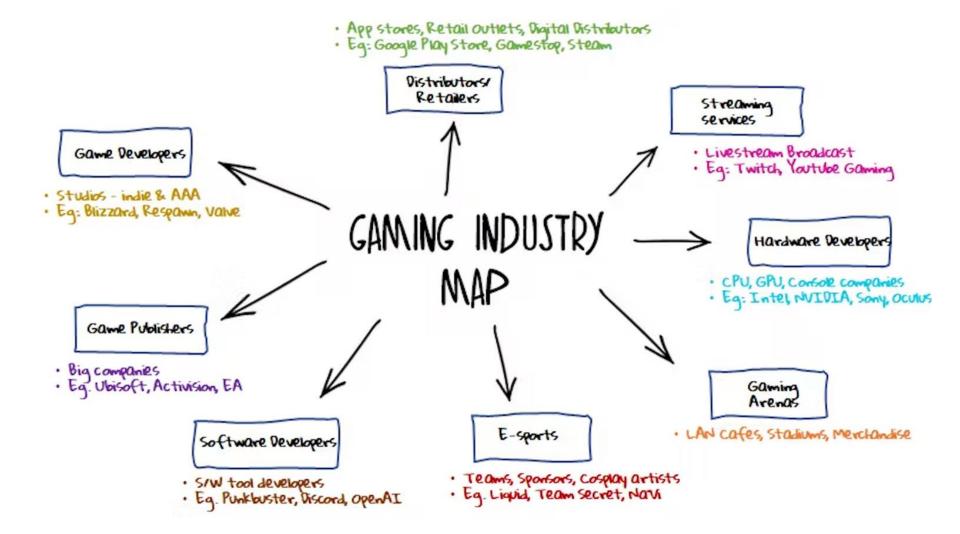
























Lunch!

Mindset-XR Innovation Support Programme roadshow evaluation form



















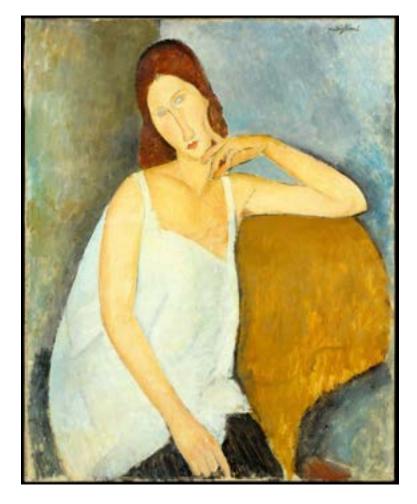
Keynote: TendVR

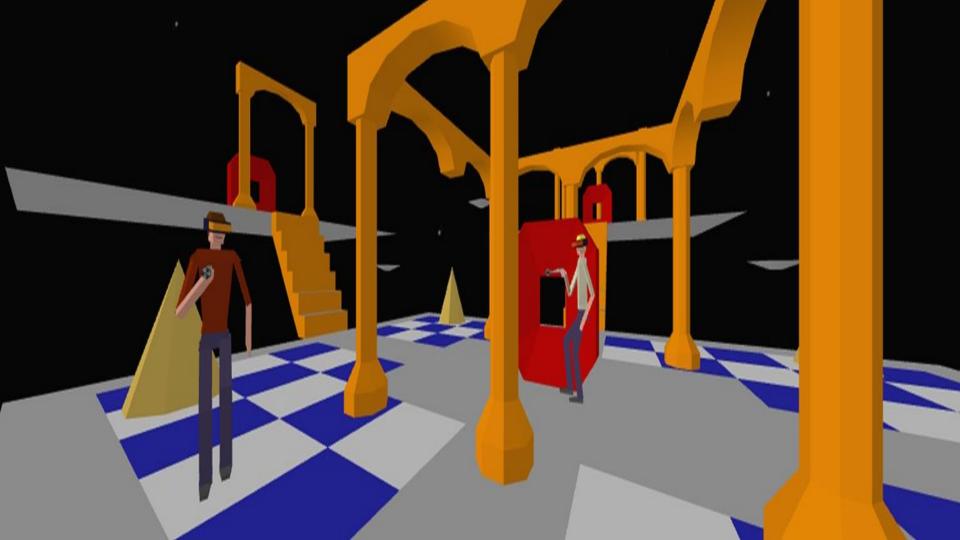
Matthew Hoad Robson



Transforming global mental health through scalable immersive therapies









Depression and anxiety: global problem

600,000,000+

More than half a billion people suffer from depression¹ & anxiety²

\$97bn

Total estimated direct expenditure on depression and anxiety treatment by healthcare systems globally

£1.05bn

The NHS spends over £1bn a year on talking therapies, with depression being by far the largest cost



Global problem:

561,000+km

The queue of people suffering from depression and anxiety would wrap around the world 14 times.

\$2.5tn

If you provided everyone with depression or anxiety talking therapies the total cost would exceed \$2tn a year.



The solution: Tend VR-MBCT A breakthrough VR-based MBCT course



Mindfulness Based Cognitive Therapy (MBCT) is an extremely effective, well proven therapy. It has no side effects, and can be given alongside other treatments.

However, MBCT is currently only available as an unscalable talking therapy.

Advances in VR technology have allowed us to create a breakthrough immersive adaptation of MBCT that is entirely scalable and can be delivered anywhere, any time, at vastly reduced cost.

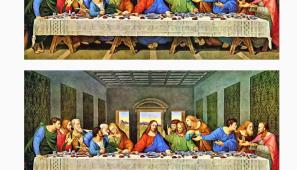
First results n=12



Further results: 35, 50 and 75 participants









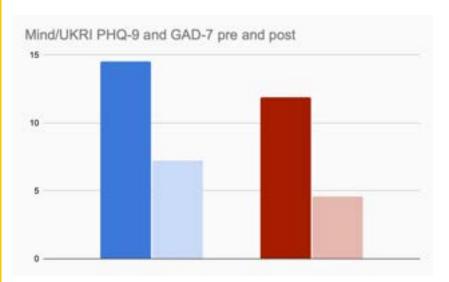


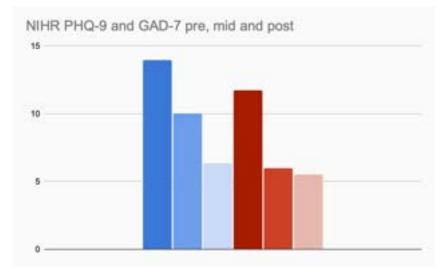


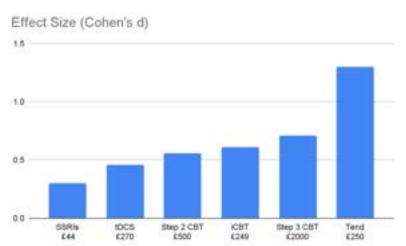


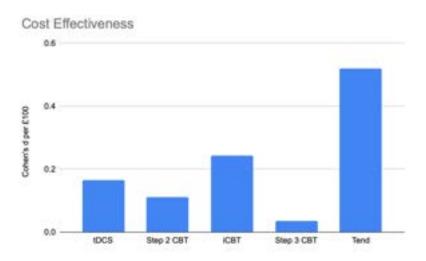












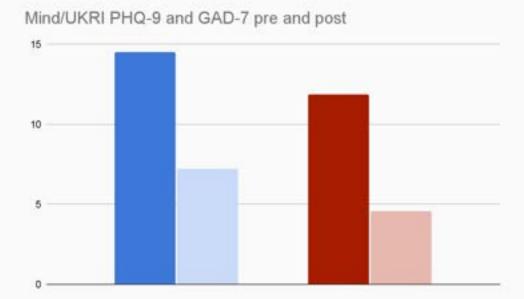
UKRI Results – 75 participants

Large reduction in Depression (PHQ-9) from 14.00 to 7.7, with a reduction of -6.3 points

Large reduction in anxiety (GAD-7) from 12.02 to 5.74, with a reduction of -6.28

87% completion rate 87% of participants completed more than 4 sessions with an average 7.8/8 sessions completed

86% would recommend to friends and family



Participant voices

- "I have ADHD and I've always wanted to be mindful, to be able to meditate but nothing I've ever tried has worked. **Tend** is different, Tend worked for me. It had a calming effect that took me out of my day to day life to see something, be somewhere else, without having to use imaginary visualisation techniques."
- "I've got hope. I've got hope that I'll be able to deal with certain things... you've got to be really kind to yourself, have compassion. It's taught me that if you are kind to yourself, take things slowly, who knows what might happen." Participant in CIRCE study.
- "It did help, definitely. I'm definitely trying to be nicer to myself, stop the critical self talk that I do all the time. One of my
 friends said 'you're so different, you're more open' I feel like I've got myself back a little bit." Participant in
 UCL/Retreat study
- "It brought back my belief in myself and my capabilities. I now feel that I can control my reactions better and it brought back my belief that my brain can do amazing things if I let it go it can improve my personal wellbeing" NIHR participant
- "I thought it was amazing. It really is the future of mental health for general anxiety and depression. I wish I'd had these tools when I was younger" Participant in UCL/Retreat study



How Tend works:

Tend is delivered either in community settings, such as at local Mind sites, or as a loaned headset from NHS Talking Therapies services. Users complete the course over 8-10 weeks before offboarding.



Headsets are held at shared sites, like Mind, or loaned to service users by NHS providers.



Users complete the course over a period of 8-10 weeks either at home or using shared headsets



Clinicians regularly check in with patients and then conduct final measures



The headset is then immediately ready for use by the next patient, radically reducing costs

Tend VR

2 to 5 times cheaper

Tend is two to five times cheaper than existing talking therapies.

Tend's shared headset model is offered to trusts at £250 per patient for an 8 week course delivered at Mind or other third sector partners.

No waiting time

Patients that are not seen quickly are harder to treat It's vital that patients that are seeking help are seen by clinicians and offered treatment quickly.

>52% Reduction in PHQ-9 and GAD-7

Tend has averaged greater than 50% reduction in both GAD-7 and PHQ-9Many patients with depression and anxiety are carers or even double carers with jobs, so giving them the option to fit treatment into their lives in a flexible way is vital

Partnerships

























Tend VR-MBCT service

UK wide service

11 sites live

20+ sites going live soon across the country in London, Essex, Manchester, Harrogate, Wales and more

Live in our first NHS Talking Therapies Service

Starting pilots in another three trusts

Talking to partners in Scotland and Northern Ireland





TEND

Transforming the treatment of depression and anxiety for 600m people across the globe



matt@tend-vr.com









Panel Discussion

Thank You!

Mindset-XR Innovation Support Programme roadshow evaluation form











Networking & Demos

Mindset-XR Innovation Support Programme roadshow evaluation form









