ADDRESSING LONELINESS AND SOCIAL ISOLATION AMONG AN AGEING POPULATION THROUGH IMMERSIVE METAVERSE EXPERIENCES

Pilot metaverse programme for people aged 50 years and over
This paper has been written to capture succinctly all conversations and actions undertaken in an attempt to join the dots together for the above pilots.

Our pilots will seek to understand how and if (i) the metaverse and (ii) participation in video gaming and peer esports tournaments can be positive platforms to reduce social isolation and loneliness for those aged 50 years and over. Additionally, we’d like to understand if these platforms can also improve outcomes for individuals with dementia.

I have prepared this paper ahead of the workshop on Thursday, 09 November, so members can read it in slow time and the opportunities and challenges/questions that are arising.

The workshop on Thursday, 09 November, will specifically focus on the metaverse pilot, and we have three aims:

- Achieve a common understanding of the opportunities and challenges/questions;
- Discuss and agree on the parameters for the metaverse build and;
- Discuss and agree on the next steps and deliverables, assigning tasks to members.

I believe we have almost, all the right people in the room on Thursday. I very much look forward to agreeing upon how we can move at pace to bring a product to market that we can not only financially sustain but also grow at pace to extend the social impact we are seeking to create. Delivering absolute quality, subjecting ourselves to external scrutiny and evaluation, and being obsessive about data and impact should, with some good fortune, set ourselves up to be a leader in the over 50 years tech market.
WHY THE PROPOSED FOCUS ON THOSE AGED 50 YEARS AND OVER?

We know the United Kingdom is becoming an ageing population, driven by improvements in life expectancy and declining fertility. The Census 2021 results confirm that there are more people than ever before in older age groups. Over 11 million people – 18.6% of the total population – were 65 years or older, compared with 16.4% at the time of the previous census 2011. This included over half a million (527,900) people who were at least 90 years of age. The average (median) age in England and Wales rose from 39 years in 2011 to 40 years in 2021, reflecting the changing age structure of the population. There is a lot to celebrate with living longer, but Dementia UK states that 1 in 11 people over 65 have dementia in the United Kingdom. This number is increasing because people are living longer. Symptoms of dementia include experiencing memory loss, poor judgment, and confusion. Difficulty speaking, understanding and expressing thoughts or reading and writing.

I believe we are all in agreement that focusing on this would present an incredible opportunity to make a real-world difference to a very much ‘hidden’ population.

WHY THE PROPOSED FOCUS ON METAVERSE AND VIDEO GAMES?

There have been a handful of studies which consider the benefits of technology as a platform to maintain cognitive functions, friendships and connections as we grow older. However, from our initial literacy review, we cannot find any substantive research from the United Kingdom. This, if true, could be a significant opportunity to provide not only research but also thought leadership and well-evaluated products to deliver the ESG Gaming vision and create real-world value to humanity.

Last week, a new study called PROTECT - published in The Lancet Healthy Longevity - was set up to help understand how healthy brains age and why some people develop dementia. The headline read:

‘THE COVID PANDEMIC MAY HAVE IMPACTED BRAIN HEALTH IN PEOPLE IN THE UK AGED 50 AND OVER.’

For the study, more than 3,000 volunteers completed yearly questionnaires and online cognitive tests to measure changes in memory and other faculties as the pandemic unfolded. The results revealed a decline, irrespective of Covid infection. Stress, loneliness and alcohol consumption may explain some of the findings, experts say. Coping with Covid fears, worries and uncertainties and disruption to routines may have had a “real, lasting impact” on brain health, the report suggested.

For this paper, we considered some of the (handful of) evidence available as to trends and possible benefits.
OUR INITIAL THINKING

Fortunately, one of ESG Gaming’s partners is HTC VIVE, who are virtual reality and metaverse pioneers. The Metaverse and virtual reality are intertwined, but they aren’t the same thing. The Metaverse is a platform that could augment or even replace the Internet, while virtual reality is a technology that lets you experience virtual worlds. HTC VIVE currently manufactures the most highly rated headsets to experience virtual worlds, plus they also are developing their version of the metaverse, VIVERSE for Business (which is also a consumer-facing platform). Given HTC VIVE’s strong corporate customer base and a keen desire to support a handful of social start-ups, plus ESG Gaming’s desire to attract corporate income/sponsorship to build our space within the metaverse, this collaboration has the potential to be 100% aligned and of mutual benefit.

James Fraser-Murison and I spent some time with the HTC VIVE team last week to scope out an initial metaverse build. From a user experience point of view, we would create a dome, with four, separate user experiences. These user experiences would be located in four, separate rooms within our dome. The dome and separate rooms would be fully branded and customised for ESG Gaming (and our sponsors).

Our initial thinking would be a ‘Heath & fitness room’ (which could be sponsored by a health & fitness company). In this room, we might host fitness classes and have interactive educational material on diet, health, fitness etc.

Another room might be ‘Meditation, wellness and nostalgia’ (which could be sponsored by a travel company). In this room, we might have interactive journeys to UK cities in the 1960s, create a meditation retreat, with classes and provide an opportunity for parents/grandparents and their children to come together to create interactive family photo and video walls.

Another room might be a ‘comedy club or amateur drama club’, as a social activity for our community to mix and form friendships.

Users would enter the metaverse as avatars and HTC VIVE’s avatars are becoming more realistic to humans, with tracking and sound technology allowing you to interact as you would in the real world and have ‘closed conversations’ between two people or small groups. The environment is also fully interactive and can be manipulated. For example last week James and I walked ‘inside’ photos and videos as if we were there. Additionally, we experienced the metaverse both as a fully immersive experience (i.e. virtual reality) and as a mixed reality experience (i.e. where virtual reality was overlayed with the real world – giving a combination of the two).
PROPOSED NEXT STEPS FOR DISCUSSION

PROPOSED ACTION ONE: RISKS AND BENEFITS

**ACTION 1:** Group to discuss and identify the risks for this pilot which we can populate into a Risk Assessment.

**ACTION 2:** Group to also discuss and identify additional benefits to build our social case.

PROPOSED ACTION ONE: TWO

Led by James, we intend to build out our metaverse over the coming twelve weeks, ready for a launch at the following shows:

- bett Education Show 2024 (Excel, London) - 24 - 26 January
- ESIC / ICE Gaming Show 2024 (Excel, London), 6 - 8 February
- MWC Show 2024 (Fira de Barcelona), 26 - 29 February
- NextGen 2024 (University of Oxford) - 06 - 07 March

**ACTION 3:** Group to discuss the potential content of the four rooms; potential educational outcomes; whether we can we incorporate video gaming; and the potential impact for users that we might measure.

PROPOSED ACTION THREE: PARTNERS

We have the following partners in place:

- **Technology partner:** HTC VIVE.
- **Strategic partner:** MDX / Mishcon de Reya LLP.
- **Standards partners:** Metaverse Standards Forum.
- **Build partner:** Fraser Esports.
- **Design partner:** Odd Bod Creations
- **Marketing partner:** Esports Insider / Sweet Cabin (if it’s your expertise).

Other partners, we need a medical partner, evaluation partner, consumer testing group, and older charity partners.

**ACTION 4:** Group to identify other partners

PROPOSED ACTION FOUR: INCOME GENERATION

**ACTION 5:** Group to discuss and populate key aims of a fundraising plan and sources of income.

**ACTION 6:** Group to discuss the ESG Gaming 25 Club paper (attached as an appendix).
DO OLDER PEOPLE PLAY VIDEO GAMES IN THE UNITED KINGDOM?

Gaming has become a significant part of the lives of people over 60 years, according to the latest Ofcom Online National Study:

- **Two in five (41%)** of those over 60 years suggest they spend more time gaming than on other hobbies including knitting, cooking and gardening.
- **The most popular game** among those aged 60 years and over was Candy Crush (56%) with FIFA (15%), Call of Duty (14%) and Grand Theft Auto (7%).
- For those aged 60 years and over, nearly a third (30%) say **gaming has helped improve their mental health** and a fifth (19%) believe it has **helped tackle their loneliness**.
- A further **three in ten (30%)** play to escape reality and enjoy social interaction with their peers online.

Notwithstanding the Ofcom study, there is limited data on how older people play video games, particularly in the United Kingdom. However, a relevant report from Global Web Index has reported in the past three years, the number of mobile gamers aged between 55 and 64 has increased by 32% globally and is now one of the fastest-growing demographics.

- **32%** increase in the number of gamers between 55-64 yrs
- **17%** increase in the number of mobile gamers over 45 yrs
- **49%** of older gamers play on a smartphone
- **40%** play on a tablet
- **12%** on a games console

**Global Index 2021**

**ADP Report 2021**

**Prospects Global**
Looking specifically at older people competing in competitive gaming, there are two good examples of success; the Senior esports team from Switzerland: Gaming | Senior Esports (senior-esports.com) and Phoenix Blue from Sweden: Home - PXB - Bringing Swedish esports to the world. ESG Gaming is keen to work with partners to not only build insight, data and research into older people’s gaming but also explore how gaming can be a force for good among this population.

While it can be hard to pinpoint the exact reason why more and more older people are playing video games, it is clear that the pandemic may very well have been highly influential in boosting these figures. However, it could be more than the pandemic. For example, with accessibility improving, and the increase of video games becoming available on mobiles and tablets, no longer do you need a gaming console or PC. Additionally, older gamers simply have more free time on their hands, and they are turning their backs on the more traditional pursuits linked to their age group. Reading and knitting are taking a back seat in favour of more active hobbies or those involving technology.

Another interesting statistic highlighted by the Global Index report is that 24% of older adults see gaming together as a great way to bond with the younger generation. Some grandparents, confused by their grandchildren’s talk about video games, have chosen to see what it was all about so that they could better understand their world. Gaming as the most powerful entertainment medium to better connect those from different generations seems undeniable, especially given the ability for family members to play one another regardless of physical location.

**WHY ARE OLDER PEOPLE PLAYING VIDEO GAMES?**

24% of older adults see gaming together as a great way to bond with the younger generation.

**WHY ESPORTS MAY BE THE BEST CHOICE FOR OLDER PEOPLE**

Looking specifically at older people competing in competitive gaming, there are two good examples of success; the Senior esports team from Switzerland: Gaming | Senior Esports (senior-esports.com) and Phoenix Blue from Sweden: Home - PXB - Bringing Swedish esports to the world. ESG Gaming is keen to work with partners to not only build insight, data and research into older people’s gaming but also explore how gaming can be a force for good among this population.

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<tr>
<th>Improved Cognitive Abilities</th>
<th>Improved interaction with peers and family</th>
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<tr>
<td>Improved Communications</td>
<td>Reduced loneliness</td>
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<td>Improved Reasoning</td>
<td>Reduced social isolation</td>
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<tr>
<td>Improved hand-eye coordination</td>
<td>Being part of a community</td>
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<tr>
<td>Improved balance, reduced risk of falls</td>
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esports participation (hidawi.com)
COMBATING LONELINESS
AND INCREASING BOTH MENTAL AND PHYSICAL HEALTH

There is overlap between loneliness and social isolation and naturally one can lead to the other, but they are not the same. Social isolation is a measure of the number of contacts people have; loneliness relates to the quality of their relationships. People may happily choose to have only a few contacts, but they would not choose to feel lonely. "The difference between loneliness and isolation | Age UK"

A report commissioned by the National Institute for Health & Care Research (NIHR) which included 39 separate studies from 29 countries and found that, on average, one in four adults over 60 reports feeling lonely. For those aged more than 75, the figure increases to one in three (31%). "NIHR: National Institute for Heath & Care Research"

Whilst gaming can be a pastime enjoyed solo (and there are plenty of benefits therein too), its competitive side, that is esports, is one which essentially demands socialisation. The majority of esports titles are more complex, strategic games, meaning more focus is required. Importantly, they’re also largely team based which means communication and teamwork are required, and they tend to lead to the forming of bonds, highs and lows, as well as a healthy dose of competition and desire to win.

These two additional research papers illustrate the benefits of video gaming among older people and illustrate the type of research we are keen to produce with our academic partners arising from this programme:

- Esports for Seniors: Acute Effects of Esports Gaming in the Community on the Emotional State and Heart Rate among Japanese Older Adults [Link]
- Qualitative Study: Hong Kong & encouraging participation in esports amongst older people. [Link]
When it comes to cognitive disorders such as dementia, there is reason to look to video games and esports once again. Newer research has suggested that gaming may help improve these cognitive skills. A study by the National Centre of Medicine explored research on the role of serious games in dementia care. During the review, the researchers explored three types of games and their benefits:

**BOARD GAMES:**

These can help with cognitive functions such as memory, communication, and emotional regulation.

**VIDEO GAMES:**

Video games can be customized to directly target different cognitive abilities, such as memory, communication and reasoning.

**VIRTUAL REALITY GAMES:**

These can provide both cognitive and physical reinforcement, depending on the type of game.

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National Library of Medicine

Other potential health benefits of video games and especially esports are evidenced in this study from Japan which looked at the effects of gaming & esports on the heart rate and emotional state of older individuals in Japan (75+).

[Esports for Seniors: Acute Effects of Esports Gaming in the Community on the Emotional State and Heart Rate among Japanese Older Adults - PMC (nih.gov)](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7223162/)