



Outdoors, Indoors

Digital Inclusion

Wilde Earth Journeys CIC

Executive Summary:

Wilde Earth Journeys Wellbeing Project

About Wilde Earth Journeys

Wilde Earth Journeys (WEJ) is a registered Community Interest Company dedicated to enhancing community wellbeing through engagement with nature. Since June 2021, WEJ has organised wellbeing walks supporting carers, disabled people, elderly individuals, young people, and those with mental health conditions or living in isolation. As a voluntary sector representative in the Forest of Dean, WEJ plays a crucial role in supporting organisations like the NHS. WEJ is also a steering group member of the Forest of Dean – Dementia Action Alliance, furthering its commitment to community wellbeing through nature.

Project Leader's Statement

The initiative was inspired by research highlighting nature's therapeutic benefits on mental and emotional health. This pilot project successfully created a digital library of immersive films, audio recordings, and a virtual reality environment to replicate these benefits, demonstrating significant positive impacts on participants' wellbeing.

About Wellbeing

Wellbeing encompasses multiple dimensions, including physical, mental, emotional, social, and economic aspects. It is defined by the World Health Organisation as the absence of disease and the presence of positive emotions, life satisfaction, and the ability to handle stress and recover from setbacks. This project specifically explored the influence of nature on participants' mental and emotional wellbeing through lived experiences and subjective feedback.

Expression of Interest

WEJ's collaboration with Forest Voluntary Action Forum (FVAF) and Barnwood set out to use digital resources to bring nature to those unable to access it independently. The project emphasised four key themes: Collaboration, Co-Production, Lived Experience, and Inclusivity.

Key Project Activities and Feedback

Sounds of Nature Playlist Events

- Event 1: Hosted on December 19, 2023, at Speech House with outpatients from Colliers Court and referrals from Social Prescribers. Participants reported the experience as "relaxing" and "therapeutic."
- Event 2: On March 5, 2024, at Forest Sensory Services for visually impaired attendees. The nature sounds, particularly a recording interrupted by a dog, were well-received, prompting engaging discussions and positive feedback about the calming and nostalgic effects.

Virtual Reality and Video Experiences

- Butterfly Gardens Event: On May 9, 2024, the team showcased VR and video experiences to volunteers and Disabled attendees at the Butterfly Garden. Positive feedback emphasised the relaxing and engaging nature of the VR environment, regardless of this being a proof of concept and needing adjustments in situ to aid user's experience.

Demographics

The project engaged 41 participants, with a diverse age range from 20 to 84. Most participants were female, and a significant number reported medical conditions or disabilities. The majority were White British, with some diversity in ethnic backgrounds.

Challenges and Opportunities

Challenges, skills, technical, and personnel.

Skills: some knowledge was brought to the project by the team, and a greater amount of on-the-job learning took place also.

Technical: challenges were encountered familiarising selves with applications and equipment.

Personnel: one critical failure with one team member resulting in them being removed, which did impact what was then deliverable

An **Opportunity** common to all areas is training and equipment upgrades, enabling an enhanced user experience and development of more innovative opportunities to engage with identified demographics in and outside of areas of socioeconomic deprivation.

Areas for training Specifically:

- Videography & Editing (Devinci Resolve)
- Field Sound recording (Sound Systems Pre-Mix)
- Unreal Engine training for VR production
- Social media marketing

Future Development and Legacy

Expand Digital Content Library

For all areas, Live Streaming, Audio, Video and VR, create a more varied seasonal landscape, narrated guided immersions, and expand into community and therapeutic gardening opportunities, for instruction and sense of community

Accessibility Improvements and Digital Literacy Workshops

Refine the VR interfaces for users with various lived experiences and conduct digital literacy workshops, especially for underserved youth and communities, to ensure diverse demographic participation and feedback.

Conclusion

Wilde Earth Journeys has successfully leveraged digital resources to enhance community wellbeing through nature engagement. The overwhelmingly positive feedback from various community groups highlights the project's significant impact on mental and emotional health. The pilot project provides a strong foundation for future initiatives, ensuring that the therapeutic benefits of nature continue to reach those who need them most.

By expanding the digital content library, improving accessibility, and conducting educational workshops, WEJ can further its mission of fostering wellbeing through nature, ensuring inclusivity and sustainability in its future endeavours.

Andrew Embling

Andrew Embling - Director

Wilde Earth Journeys CIC

1st August 2024

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About Wilde Earth Journeys

We are Wilde Earth Journeys (WEJ), a registered Community Interest Company that focuses on the engagement in nature, to aid wellbeing. Today, we have been orchestrating community and bespoke forest bathing walks, or wellbeing walks since June 2021, along with delivering various school-based programmes. Working in an area defined as socioeconomically deprived our work supports all ages, the young and the elderly, including carers, persons:

- with a disability,
- living in isolation and lonely,
- with a mental health challenge or diagnosis,
- at risk and referred

We play a critical role in supporting key organisations like the NHS, in our position as a representative of the voluntary sector here in the Forest of Dean. We are a steering group member of the Forest of Dean – Dementia Action Alliance and collaborate with other voluntary sector organisations in service delivery and strategic decision making. We wish to continue to serve and fulfil the community through our commitment to wellbeing, inspired by, and working with the natural world.

Project Leader's Statement

At its core, this initiative was driven by a commitment to harness nature's therapeutic benefits for holistic wellbeing. Inspired by research demonstrating the positive impact of nature recordings on mental and emotional health, this pilot project has successfully harnessed these positivity's through the creation of a digital library of immersive films, audio recordings, and a captivating virtual reality environment.

About Wellbeing

Wellbeing is a multifaceted concept that, in short, refers to the overall quality of an individual's life in terms of happiness, health and prosperity. It encompasses multiple dimensions, including physical, mental, emotional, social, and economic aspects. The World Health Organisation (WHO) defines physical wellbeing as health, fitness, and the absence of disease, emphasising the importance of regular exercise, a balanced diet, supportive and restful sleep, and an engagement in medical practitioners. Mental

wellbeing is similar, but characterised differently, referring to cognitive functioning and emotional stability of a person, allowing them to think clearly, make decisions, concentrate, handle stress through resilience and recover from adversity or setbacks - whilst maintaining a positive outlook on life. (Diener et al., 2017)

Emotional wellbeing is associated with the happinesses of life, life satisfaction, and emotional intelligence, including the ability to understand, use and manage emotions positively to alleviate stress, communicate effectively, empathise with others, and overcome challenges. (Goleman, 1995). Social wellbeing involves having a supporting a fulfilling relationship with family, friends, and the community, as well as a sense of social inclusion, acceptance and belonging in various social settings (Keyes, 1998). Meanwhile and less so considered in this report there is also the facet of economic wellbeing which encompasses financial stability and job satisfaction, where individuals feel fulfilled and valued in their professional lives while maintaining a satisfactory work life balance (Stiglitz et al., 2009)

Wellbeing is not just the absence of illness or stress but also includes the presence of positive emotions, such as a sense of meaning or purpose, and the ability to tackle life's challenges (Ryff & Singer, 2008). It involves a balance among the various dimensions, where an improvement in one area can positively influence others. Wellbeing can be measured subjectively through personal perception, or as this report explores, 'Lived Experiences' collected through different methods.

Whilst there are factors that influence wellbeing including genetic predisposition, environmental factors, and lifestyles choices; these will not be explored as closely due to the limited scope of this essay.

As Andrew has so poignantly highlighted initially; this pilot project seeks to explore the feedback from the various events which improve participants wellbeing which, as mentioned above, seeks to create a 'knock on' effect across those who participated.

Expression of Interest

Wilde Earth Journeys set out a clear Expression of Interest when partnering with both Forest Voluntary Action Forum (FVAF), the supervisory body of the funding and Barnwood, the provider to ensure clarity from the start. Between both FVAF and the partners participating in the project, there was a clear

purpose laid out, stating “To use digital resources to bring nature to those who cannot, and do not independently do so now, and to make known what may be feared or only assumed before visiting a space in nature.”

Alongside this, there were four key themes that had to be explored through the project including Collaboration, Co-Production, an emphasis on Lived Experience and Inclusivity.

As such, the following section outlines who were engaged in the project in a particular manner, through direct involvement with the research. To the following we give our thanks.

FVAF, Barnwood Trust - Access To Nature, Forest Sensory Services, The Butterfly Garden team, Seth from The Innovation Hub, Honey and Tom, Social Prescribers and the Mental Health Link Worker who assist service users with mental health conditions and social isolation). Colliers Court, who are an NHS foundation trust that provide services to support learning disability, recovery, ageing well, cognitive decline and Child and Adolescent Mental Health Service (CAMHS). (Children were not included due to the complexity of the research)

Forest Pathways, an Accessibility Research partnership who engaged with the research at certain times. Henry and Guy were also part of the same FVAF/Barnwood umbrella engaging in their own work as well.

When engaging with the Community Leader for the Muslim community – Ismal provided feedback on the interdisciplinary boundaries of the project notably, Tail’s trails and respecting religious practices.

ArtSpace MindSCAPE group (supporting those living with dementia and their carers)

Forest of Dean Dementia Action Alliance - Prevention Awareness Day.

Deb Sturguss – Otis/Chilli (“Tail’s Trails”)

Dementia Action Alliance – Steering Group (who created Deb’s Sturgess) Deb’s videos.

Mindscape is a project run by Artspace, carers and those living with dementia.

The Forest Bee – Susie, publicised and outlined the project and its purpose in their publication as an additional root to gain engagement and gather feedback.

Charlie’s Cancer Support Group, Complex Mental Health Team who both featured the material in their circles and to Bob Burns - Community Group of Wellbeing Practitioners,

We emphasise that the project was developed with a particular focus of Collaboration and Inclusivity gathering community and online opinion to understand the effectiveness of the deliverables and gauging not just peoples’ opinions but also peoples’ feelings towards what they experience when participating.

Lived Experience

Lived experience refers to the innumerable things that someone has experienced themselves, especially when these give the person a knowledge or understanding that people who have only heard about such experiences do not have. This is particularly important when literature and readings available to the public from Disabled People is often scarce, specific or gate kept within organisations and institutions. This author does not comment on the moral responsibility of such a process, however for the purposes of this essay highlights the Lived Experiences, gathered from those participating in the pilot project, is understood in the following ways:

- Feedback from participants at events or workshops
- Shareholders and Stakeholders
- People you have used to assist in the advertisement of your services.
- Audiences from Social Media/Multimedia publications
- Live Stream Feedback
- Podcast Engagement
- FVAF Podcast

Application of the Outdoors, Indoors Playlist at two events with differing Walking Groups

Key words from the audiences as feedback:

On 19th December 2023 Andrew Embling, Honey Wylde and the team led two events back-to-back. Two groups were invited to engage in the Sounds of Nature experience. The first group were outpatients from Colliers Court. The second group were volunteers and those in receipt of services from Social Prescribers. This was both a participant feedback event and a celebratory event. These were both walking groups. Both events were hosted at Speech House.

To assist in understanding the effectiveness of the initiative, key phrases are highlighted below to reflect the sentiment of the experience. At the end of the day, participants unilaterally fed back, positively, about “how relaxing it was” and how “therapeutic it was.” One participant stated, paraphrasing, that the music would aid in quieting a busy mind at the end of the day. Furthermore, one participant vocalised that the sounds and imagery would be useful in intervening the escalation of someone’s mental health on the verge of a panic attack. The groups agreed with the assessment. With reference to the ‘secret sound’ of moss, it was described as creating a “magical illusion in their mind” because it was ‘otherworldly.’ From this event, Andrew realised that it was important when gathering data (feedback from the day) to use the recording equipment in a quieter environment. This practice is visible in future events organised for this project or capture data in multiple forms and not just rely on one (say, microphone) to gather a cohesive picture of information.

Application of the Outdoors, Indoors Playlist at event with Forest Sensory Services

On the 5th of March 2024 Andrew led an event at Forest Sensory Services, Andrew demonstrated his “Outdoors, indoors” Project to a group of Visually Impaired attendees. Andrew placed and used a Bluetooth speaker in a roundtable presentation to demonstrate recorded material; “sounds of nature” (bird sounds), and a fixed recording of nature. The second recording was an unpublished showing of nature. What was noteworthy is that quite early in the second recording, a dog arrived during recording and the sound of sniffing the microphone could be heard. It was received excitedly by the

attendees, who laughed during the presentation. This provided anecdotal storytelling about the recording process of the project. Again, this was warmly received.

During the presentation, Andrew also showed the sounds of walking through the undergrowth. Andrew employed audio narration in his presentation, accompanied by the birdsongs. This prompted the group of attendees to organically ask about bird songs, where one individual talked about their experiences of the use of 'Merlin' which they had learnt about through a Television program. This led to a conversation about the accessibility of the application and the attendees used the application to determine the bird sounds. The application correctly identified the bird. This demonstrates on a technical level the effectiveness of bringing the outdoors-indoors. One of the participants expressed how relevant the audios were for her mindful practices. This is consistent with the project's expectations.

After the conversation about the application, Andrew began showing the 'hidden sounds.' The first sound was the wind through barbed wire, the second was the wind through stock fence, and the last was water being drawn up through an oak tree situated next to the River Severn. All these sounds were recorded at the same walk near Westbury-Upon-Severn. Andrew played the sounds and clarified what was in each recording. One of the applicants, with agricultural experience, found the experience really engaging as it evoked strong feelings about his history. The applicant engaged with what he had heard, and he wanted to know what maize growing was like. He also wanted to know what 'the first cut of meadow grass.' As part of the legacy of the project, Andrew has acknowledged this feedback and will consider adapting his recording practices at the attendee's request.

Overall, the entire presentation was strongly, positively received and there was engagement throughout the presentation. There was no negative feedback at all. This demonstrates the success of the project pilot when presenting audio sounds to visually impaired Disabled people. This has also provided a replicable blueprint for future presentations. Upon reflection, Andrew acknowledges that greater direct questioning would deliver specific tailored experiences to audiences.

Demographics

From the above listed projects, the following information can be shared about the demographic reach. In summary:

In total **41 people** responded to the registration surveys. All participants consented for their data to be retained for WEJ's records.

31 declared they were female, 10 declared they were male

7 declared themselves as carers, 30 declared themselves as not carers, and 4 did not declare anything

16 declared they had a medical condition, 6 declared they did not have a medical condition and 20 did not declare anything

18 declared that their lives were impacted a little because of their medical condition or disability, 2 preferred not to say, 3 did not know and 19 did not feel that their lives were limited because of a health condition or disability.

Participants' ages ranged from as youngest as the recorded bracket of 20-24 to the oldest bracket age of 80-84.

Almost all participants were White British, 1 participant declared themselves as White other, 1 participant declared themselves as mixed multiple ethnic and 3 declared that they did not know.

YouTube Live Streams

The pilot continued its exploration of digital solutions using the ability to live stream.

The intention held by the pilot to use live streams is the ability to engage with a live online audience and explore on their behalf while sharing the mindful practices of forest bathing.

Livestreams were recorded on five occasions:

- 23rd March 2024, Edge Hills Nature Reserve
- 4th April 2024, Linear Park (industrial estate end)
- 4th May 2024, Linear Park
- 31st May 2024, Plump Hill
- 1st June 2024, Plump Hill

Delivery of the live streams was not without its challenges,

- Required number of subscribers for the Wilde Earth Journeys YouTube Channel
- Mobile phone reception
- Settings on equipment used.
- Operator experience

During the live stream audience participation was low and inconsistent. Whilst engagement was low, this was effective in hosts of the live stream developing new skills that could better aid live streams for the future.

Subsequent engagement with live stream recordings was observed and we spoke to one viewer who reported they had agoraphobia and used our live stream recording to view an area with which they were familiar. They very much enjoyed the recording and seeing what was previously familiar to them, we had hoped they would join the live to enhance the experience much more.

Overall, we have proven the process of live streaming, and the intended benefit remains unchanged, what is left to improve is live engagement.

Focused publicity and marketing would aid engagement, moreover, a consistent series of live streams on a regular day and time would build a routine and over time an audience.

We had hoped groups would come forward for the pilot following open invitations, again more can be done here for bespoke live stream options.

Application of Virtual Reality and Videos at Event in the Butterfly Gardens

On the 9th of May 2024, Andrew Embling, Seth Fright, Guy Woodland, and Henry Woodland attended a partnership location at the Butterfly Garden in Cheltenham. At this event, Andrew and the team displayed both the Virtual Reality environment and the Outdoors, Indoors Video experiences to a group of Volunteers, and Disabled People who were attending the Butterfly Garden.



The aim of the day was to display and gather feedback from participants. At the event, audio, video, and written feedback was gathered with consideration of ethical practices, survey questions were not too long, and audio data was

transcribed to protect the identities of participants. Andrew was responsible for highlighting the videos; Seth highlighted Virtual Reality, Henry gathered feedback from those who participated in the Virtual Reality and Guy captured imagery of the day.

Audio data was transcribed and reviewed by Henry Woodland on both the 11th and 12th May 2024 to tidy the data and confirm relevant data points. This feedback is available in written format on request.

From the transcribed data, there were general themes including the successful areas and what the participants enjoyed. Furthermore, elements that could be improved upon have been added below. Concluding thoughts were added to ensure that participants' experiences could be fully captured.

At times, four participants required extra support in answering so there is a mixture of open and closed questions to gain feedback from Disabled people as participants.

Positive themes included: the calls for the project to be developed with the inclusion of more spaces; more opportunities to explore and the general recognition of the importance of the project from both Disabled people who loved the experience. Meanwhile, input from volunteers who recognised the importance of the project as an accessible way to bring the forest to those who did not have the opportunity to do it themselves.



With regards to accessibility, there are key points to be considered with regards to the development of the project.

There were commitment issues with one member of the team who withdrew from the initial project idea. The team members were expected to build the virtual reality environment as part of the brief. Seth was expected to detail this environment with plants and trees, as interactive objects. The first team member was expected to create the virtual meshing and Seth would texture it. However, due to the lack of commitment on the first team member's part, they were unwilling to share the completed source code for editing. This led to the dismissal of that team member and a reevaluation of what was possible, leading to a reorganisation of Seth's schedule to complete to standard. Seth's compressed schedule meant that the headset was not compiled in full to operate as a standalone piece of equipment. As such, they had to be attached by cable for the virtual reality experience to work which limited the movement of the experience. However, even with this limitation the feedback from the audio recordings demonstrated exceptional positivity about the pilot project.

Most importantly was the realisation that during evaluating certain movements were inaccessible for those using Wheelchairs because they could not bend down to pick up objects in the virtual space. Seth cleverly



created a temporary work-around where he removed gravity from Virtual Reality. This was a short-term solution, however. In the future, a longer-term solution will be incorporated which is adaptable to meet each user's needs.

There were general calls for additions to the wildlife and atmospheric elements of the virtual world which can generally be

considered as 'adding wildlife', 'adding water elements', 'adding buildings'...etc. which has been acknowledged by the team but as a proof of concept the team is satisfied with the results of the virtual space currently.

There were also reports about how support can be given to Disabled People in the virtual space as they move through the real world. This is referring to how carers would be able to support those who have mobility issues or support

those who are at risk of falling over could attend the virtual world with someone else so they could walk through the forest together like a Forest Guide.

It is crucial as well that there could and should be a space where there is a large flat open space for participants to walk around safely, which is accessible for those in wheelchairs. For its maximum potential to be reached, a dedicated space is required, which mitigates risk. There is adaptability in what spaces could be used, as proven by this concept, where Seth modified the boundaries to map the spaces available in the real world.

Participants (noticeably the volunteers) commented that the method of collecting objects was inaccessible due to dystonia. Virtual reality hand-held devices are inaccessible to a handful of people currently and combining this concept with another requested feature; a tactile glove ('so that objects can be felt when held') would be incredibly useful. Oppositely, Disabled participants praised the hand-held devices because for use when exploring the virtual world for prolonged periods of time the devices were more effective than the proposed idea of the gloves. The current practice is operating well; however, it might be worth exploring with Disabled participants a tactical glove if they require it. This will require further development with technology that is already available.

One participant reported that the YouTube videos were more accessible than the Virtual Reality. Whilst the team recognises this statement; the team has high aspirations that virtual reality will be as comparatively accessible in the future due to the "limitlessness" of the operation. However, it should be appreciated that the whole experience comes together where the participant can choose their own experience, both the YouTube journeys and the virtual reality experiences.

For the roll-out of successful Virtual Reality spaces to be accessible; there were off-microphone points that can help inform about a distribution network, to ensure the availability of the project throughout the Community. This could be explored more thoroughly through a commitment to a single organisation holding the technology and lending the technology out as is required, or for a national distribution network such as public libraries or another charity whichever is most appropriate.

It is important to note that the team received specific feedback about the well-being elements of the Virtual Reality technology where one participant

commented that it “gives somebody the opportunity to explore, to overcome anxieties, apprehension, and really feel safe in a space that they thought they wouldn’t.” This was phenomenal feedback as it achieved exactly what we expected it to do.

Further areas to Consider:

- Find a way to reduce the nausea caused when removing the headset which was referenced in two feedback sessions.
- The feeling of “hyper-reality” mentioned by one participant.
- Finding a way to correctly support those wearing the headset so that it can be worn by participants with glasses or other assistive technology.
- The incorporation of ‘tactile’ clothing to really feel the experience.

During one instance of the audio feedback, a participant referenced “the mundanity of life” which was appropriately flagged as a depressive marker to the Safeguarding Lead on site to ensure that the organisation where the participant was being supported, could address this going forward.

Feedback of the day overall was exceptionally positive.

Chris Evans stated in email to Andrew Embling that:

“Just wanted to drop a line to say thank you for allowing us to be part of your exciting work.

Those who took part have been full of it this morning and I am pleased to extend the offer of further support at any time.

Please pass on our good wishes to the team.”

In a second email to Guy Woodland

Chris Evans stated that:

“I am delighted that you found the day worthwhile, my guys loved it and I suspect will be falling over one another to be involved in future collaborations.”

From these emails there is encouragement from event organisers and leadership to make available these events again and a willingness to engage again in such an exciting and creative virtual world. Areas that revealed themselves on the day, which were not part of the initial Expression of Interest

were the additional virtual worlds where one participant engaged in using a spray can which in the real-world, they would not necessarily be able to use. The participant created a particularly engaging artwork. This demonstrates that there are future opportunities to expand on this learning.

Summary:

Unforeseen management changes at Gloucestershire County Council prevented the full official partnership with Gloucestershire Library Services, specifically membership of The Innovation Hub and access to the Oakwood Park Immersive Reality space. This caused capacity challenges for one member of the team impacting their availability.

The original VR developer and reported 3D environment expert, suggested using Unreal Engine and was tasked with training the 2nd VR team member. Following communication breakdowns and refusal to version control the code to enable the sharing of it, we decided to remove them, resulting in unplanned delays, additional work, and the need for the 2nd VR team member (now the sole VR resource) having to learn on the job.

In conversation, we can further understand this delivery, its challenges, and opportunities. Equally, we must do the same to capture insights for the overall project's delivery, challenges, and opportunities, it too also faced its challenges following the dedicated project manager resource leaving.

Despite these difficulties, video, audio, and a functional VR environment was delivered and received positive feedback during testing, highlighting areas for improvement and validating the project's potential for future iterations.

Key Points:

- Inclusion.
- Synergies among partners.
- Delays due to management changes at Gloucestershire County Council.
- Capacity issues limiting project involvement.
- Challenges with resources and lack of cooperation and support.
- Positive feedback from testing despite project challenges.
- Future considerations for VR, Video, Live streaming, and Audio.

Conclusion

Wilde Earth Journeys (WEJ) has demonstrated a profound commitment to community wellbeing through nature engagement, effectively enhancing the quality of life for diverse groups including carers, Disabled People, the elderly, and those with mental health conditions or living in isolation. This pilot project successfully harnessed the therapeutic benefits of nature by creating a digital library of immersive films, audio recordings, and a captivating virtual reality environment. The initiative has not only validated the positive impact of nature on mental and emotional health but also set a replicable blueprint for future endeavours.

The project's success is reflected in the overwhelmingly positive feedback from various community groups. Participants across multiple events, such as those at Colliers Court and the Butterfly Garden, reported significant improvements in their mental and emotional wellbeing. Descriptions of the experiences ranged from “relaxing” and “therapeutic” to aiding in the management of mental health conditions. This feedback underscores the project's potential to create a lasting positive impact on community wellbeing.

The Outdoors, Indoors playlist and the virtual reality environment were particularly well-received. Participants noted the calming effects of nature sounds and the immersive experience of virtual reality, which provided a safe space for exploration and overcoming anxieties. These innovative approaches allowed participants to experience nature's benefits even when physically unable to access natural spaces.

The project's emphasis on inclusivity and collaboration was evident throughout its implementation. Engaging with various community organisations and stakeholders ensured that the project was tailored to meet the diverse needs of its participants. The feedback from visually impaired attendees and those with mobility issues highlighted the project's adaptability and potential for future enhancements.

However, the project also faced challenges, particularly in the technical execution of the virtual reality environment (primarily due to time lost having to recreate what was lost losing an original team member). Issues such as accessibility for wheelchair users and the need for a more comprehensive support system for Disabled participants were identified. These challenges

provide valuable insights for future development, emphasising the importance of continuous improvement and user-centred design.

With more time the learnings and observations can be incorporated, we have made enquiries to secure additional resources to advise on VR design which it is hoped will aid any future development.

The feedback gathered during this pilot phase indicates dedicated support for the project's continuation and expansion. Participants expressed a desire for more spaces and opportunities to engage with nature through digital means. This aligns with WEJ's mission to bring nature to those who cannot independently access it and to break down barriers that prevent people from experiencing the natural world.

In conclusion, the Wilde Earth Journeys pilot project has successfully demonstrated the significant benefits of nature engagement for community wellbeing. By leveraging digital resources and fostering strong community partnerships, WEJ has created a sustainable model for enhancing mental and emotional health through nature. The positive outcomes and constructive feedback from this pilot provide a solid foundation for future projects, ensuring that nature's healing power continues to reach those who need it most.

Next Steps and Legacy

Based on the achievements and challenges of the various pilot projects arranged by WEJ, there are a few strands of continual development and areas of research that could be interesting to develop further, either alone or as part of a series of projects, or community initiatives. There are both short- and long-term projects to consider:

1. Expand Digital Content Library

WEJ and associates could expand the variety of immersive films and audio recordings to include a more varied and diverse set of sounds pulling from ecosystems within the Gloucestershire region, seasonal noises related to animal migration or habitat, sounds unique to times of day to cater to broader range of preferences, needs and wants.

Optimistically, with the correct partnering, there could also be the introduction of interactive elements that were laid out during the research with the Virtual Reality workshop. This was wildly popular and well received,

an area that should be developed to fully realise the success of the product. These could speculatively be things such as guided nature walks, or even virtual gardening activities. Drawing more people into a cooperative feeling, albeit virtual, will assist in fostering closeness.

2. Accessibility Improvements and Digital Literacy Workshops

Speculatively, there is a need for simplified interfaces with virtual reality environments to make them user-friendly for individuals with various disabilities. As comprehension increases and the digital divide widens there is a necessity to place the importance on education to engage with the virtual world safely, which could be incorporated through outreach routes such as in schools and young people groups such as Scouts and afterschool clubs. This is particularly poignant as increased outreach is necessary to bring Virtual Reality to underserved youth and communities to ensure diverse demographic participation and feedback.

Due to the popularity of carers in attendance, it would be beneficial to support the carers and family through training of virtual reality equipment and digital literacy so that the Outdoors could be brought Indoors anywhere.

3. Mental Health Initiatives

Through the direct collaboration with organisations already listed, there could be a permanent inclusion in organisations that help treat mental health conditions or care for those living with a mental health condition. These could include hospitals, rehabilitation centres where WEJ could bring digital resources into therapeutic programs.

4. Digital Personalisation and Technological Advancements

Through specialist support research how to personalise Virtual Reality content based on individual preferences and conditions. The use of AI would be effective in implementing this in real time. Through the advancement of Virtual Reality technology to improve accessibility, make more intuitive settings and scenery and better integrate assistive devices with VR capability.

5. Cost-Benefit Analysis

Through engagement with economic researchers who have a keen interest in therapy, WEJ could understand the cost-effectiveness of digital nature engagement programs compared to traditional therapy methods openly sharing their findings with other organisations and institutions to

ensure digital therapy is acknowledged as the outstanding form of support that it is.

By focusing on these key areas of research, WEJ can build on the success of the pilot project, addressing identified challenges and expanding its impact on community wellbeing through innovative, yet inclusive nature-based engagement solutions.

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Appendices

Appendix 1

Appendix 1 outlines participant key responses for the following groups: The Outpatients from Colliers Court, and the Social Prescribing referrals. This is a voluntary submission and was not a mandatory process in line with ethical practices of gathering data from participants. This information is highlighted in the summary in the report above. This is an excel document included in the report.

Appendix 2

Appendix 2 contains transcripts of conversations of interviews held as part of the trails of the VR and Outdoors, Indoors playlist

Appendix 3

Appendix 3 outlines the demographics of the groups from Appendix 1.

Appendix 4

Appendix 4, shows comments from a private membership group who were invited to review the Outdoors, Indoors playlist.

Appendix 1



Captured from the Social Prescribing referrals and Colliers Court groups after experiencing the Outdoors, Indoors media, video and audio. The data only shows unique words and phrases not the frequency.

- Amazing
- Calming
- Colours
- De Stressed
- Floating
- Mindful
- Music
- Peaceful
- Powerful
- Rainbow
- Relaxed
- Relaxing
- Sleepy
- Soothing
- Tranquil
- Bird song and buzzing of flies was reminiscent of summer
- Cant believe these noises are going on as we walk around
- Felt like I was in a totally different world.
- I know a lot of people who can benefit from this.
- It's always there, you just don't hear it
- Memories of when used to mountain bike.
- Mushrooms are like a village on side of a hill like you see in travel brochures.
- Really good mindfulness video
- Really intoxicating, sounds remind me of a body, a pulse, blood flow
- Switching off completely
- Takes you away from things.
- Would help me fall asleep.

Appendix 2

Transcripts from The Butterfly Garden trial

"I picked up a ball and dropped it. But then I picked up a flower. That was so much easier"

"I thought it was very good. It was very forest-y and I thought you could wander around, which was the whole point of it. So I really enjoyed it ... I thought it was just brilliant."

"I liked the fact that there was depth to the view. So you got a background of greys and browns and in the foreground you got some really quite bright green and darker trunks and recognisable trees like the beach tree. They look quite unrealistic. In most respects, I was just saying to your colleague that the beach tree, for instance, where small stems come out of the trunk, it's a little bit like the artificial flowers you see in certain nurseries ... But all the rest of it, the main trunks and the whole shape of it and the leaves are pretty good."

"What I wanted to do was walk through the red and blue net and start going up the path."

"I can see these interesting paths, all these different trees and different bits of scenery. I want to go in and explore them. So that's what I'd want to do. "

"The flower I picked up held and managed to put down in the same place ... That was a lot better than the first time around"

"The cube. The cube was nice and small. But then I didn't think I was going to get my fingers all the way around it. So I was quite pleasantly surprised how easy it was to pick it up. I thought, well, I'm going to have to get my fingers right around the side with the big sphere. But I realized by that stage you'd only had to make contact and it would stick to the hand. Yeah. I thought you'd have to do that and lift the thing. And if you've got a ball that big, there's no way you can do it. Because normally when you pick up a ball like that, it's two hands"

"It's clever technology and you do feel like you're there ... maybe you can have a really bigger variety of maybe a dozen or so different objects, birds, butterflies, flower types, rock types, cones on the floor, and you are encouraged to explore them or identify them ... It'd be nice to see a squirrel in a tree or something else or a wild boar."

"I thought it was lovely. It felt like you were in the forest. It was nice to be able to pick things up and turn them over to see what the flower was like underneath."

"it would be lovely to be able to have a chair position so you could sit on the rock and almost have a cup of tea and have a look around and feel you were having a little snack in the forest."

"I found it very meditative and I like meditating very much because it allows for escapism, sort of like thing."

“it would be lovely to have some birds maybe going through because you would have, like there's just birds that have flown through there. Oh, another one. So you would have birds flying through and squirrels running up the trees.”

“I'll say to XXXX when I go down, to get XXXX to come because she struggles with walking. So she might find that nice for a walk in the forest and find the slightly different ways that would make it better””

“we do lots of walks with the dog, so for me walking through a forest, you could almost imagine Lucy running off here and running off there. So you could also incorporate your own personal elements and experience, like, oh, I have a pet dog, my dog is this breed of size”

“if you weren't able to walk, so you were in a home, something had happened, a massive stroke or something, you weren't able to walk. To be able to have that walk in the forest with the sounds of the birds and to bring those memories back would just be lovely, really lovely.”

“A technical thing for me as a wearer of glasses is it took us a long time to be able to get the headset on. And it wasn't too comfortable even when I'd got it in the right. I've got it nicely focused. So that worked.”

“Yeah, good. Good. Yeah, good. Lots of really clear imagery and the essential ability to pick stuff up with your hand and interact with it a bit works very well. “

“I picked up a ball and a globe and a cube and a flower and tried throwing things around a little bit. That worked quite well. “

“if you weren't able to walk, so you were in a home, something had happened, a massive stroke or something, you weren't able to walk. To be able to have that walk in the forest with the sounds of the birds and to bring those memories back would just be lovely, really lovely.”

“I found that slightly more restrictive than the video experience because the movement is limited ... I guess because I'm used to being out and about and I see a park, I want to walk down there, I want to climb on it. So to me that felt more restrictive than the video because there was more movement in the video”

“I don't know how sensory the touch side of things becomes. I mean obviously it's very immersive from a visual perspective. But... The tactile. Yeah, it's almost like you've got the sense but you haven't got the sense if you know what I mean”

“I certainly see what's on the laptop being accessible instantly to everyone. This not as much so just because of the technology that's behind it and the availability of that ... People who don't have the technology would have to have accessibility to it”

“I think it was very clever, very, very clever. Thank you. I've never done that before, so. That's another tick”

"I tend to think it's more hyper-realistic than realistic. Yeah. What makes it seem hyper-realistic? Because it looks more real than reality itself ... It's like a quantum simulator which is almost indistinguishable from reality. Yeah. And what areas do you like the most about that's what you saw? Because that I found that this world is a... I don't like this world because that I find it a bit mundane. That's why I enjoy going into new experiences." (we raised this with safeguarding lead)

"it was really good. - Yeah? - Yeah, I don't know how to explain it, but it was really good... I guess if you live in the middle of a city, you've got no countryside or anything like that ... That would be wonderful ... and the reality of it. ... the depth, the depth perception, you know, the things that are going off into the distance and the leaves were waving. - The leaves were waving. - Which was good. - Like literally like they were waving in the wind. - In the wind, yeah"

"I found it a little bit hard and I soon got used to it. And then I picked up the ball and it's really nice the way, you know, how my glove sort of sucked into the ball. It's really lovely ... really, I enjoyed it. I'm going to give it a hundred points."

"I find it very nice and very good. You can get into the woods and all that and see in nature and all that sort of thing. And it's really, really lovely. I couldn't believe how close that ball was when I touched that ball. It's just fantastic."

"The opportunity to explore a different environment than where you are, but also then to interact with it and to know what the possibilities are ... I feel that it gives somebody the opportunity to explore, to overcome anxieties, apprehension ... and really feel safe in a space that maybe they thought they wouldn't. And then hopefully I think it also creates opportunity to then go in really visit a space and outdoors. So I think it's not going to replace anything, but I think it's going to engage and I think build confidence"

Did you pick some objects that do? –

I tried, but we couldn't get the thing to work.

That wasn't to do with you, it was to do with the battery?

Well, I don't know, it might've been me, I don't know. But I was trying to, but I couldn't see my hands as I was trying to pick them up. So I was trying to pick the cube up, and my hand was just invisible. I was like, "Okay, I'm gonna go." It might've been me, I don't know.

Could you just tell us a little bit why you didn't want to do the experience?

It's very strange when you put the VR on, it gives you kind of a bit of a sickness feeling. (only one comment like this was recorded)

Was there anything that wasn't working?

Not at all. I said no. I thought it was just brilliant

Would you do it again if there was more of it?

Yes. Yes, I would

Do you think we should add wildlife to our forest?/

What would you want to see more of?

"Yeah, oh definitely ... Squirrels or birds."

"Trees. More trees. More different trees. Yeah."

"the other thing that might enhance it is movement within the scene itself. So it might be water. It might be... It's stuff that's moving within the background to make it wildlife. There might be birds flying through. There might be squirrels running through. Deer running across."

"I think we can have more... there can be more spaces. I think there could be more objects to interact with and maybe some different choices. Personal choices when you're in there."

"I can't wait to see it grow."

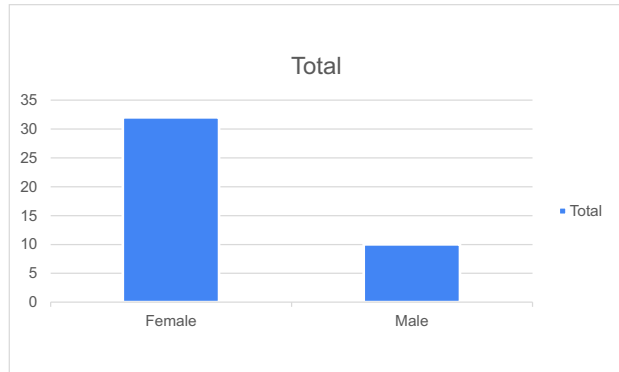
Would you want to see your wheelchair in the forest as well?

"Yes. Yeah. I would because I was struggling to move it when I was looking around"

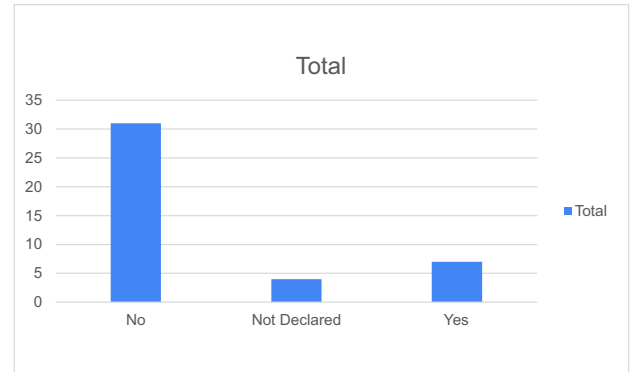
Appendix 3

Demographic data recorded from Social Prescribing referrals and Colliers Court groups

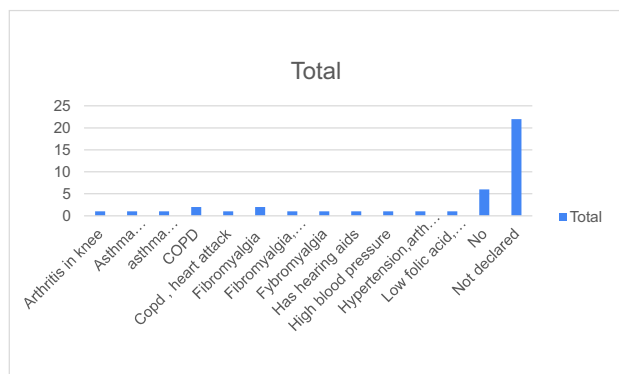
Gender



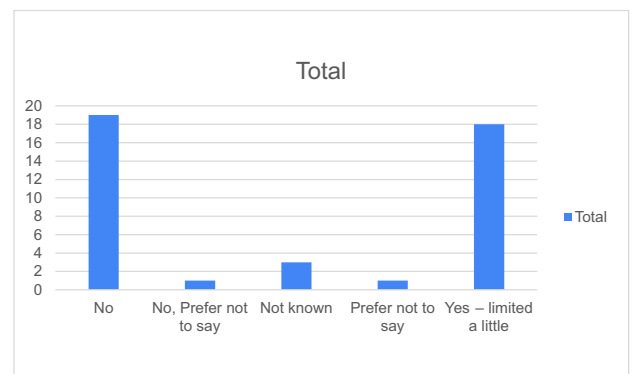
Carer



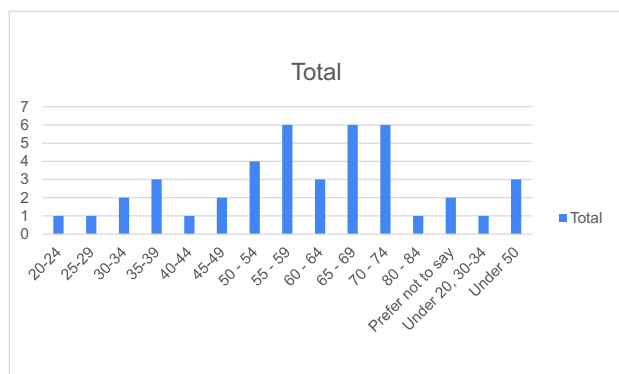
Medical Condition



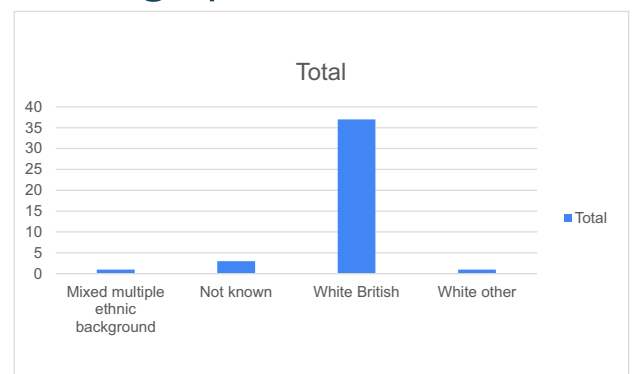
Life Impacted



Age Range



Demographic



Appendix 4

Private membership group was asked to view the Outdoors, Indoors playlist to seek their feedback.

The following responses were recorded from the Facebook group.

DS

I clicked the second link...it wanted my info...name details...no thank you. So, I clicked the first link...almost bored at this point! There was a video in a forest...lovely! Really? Go outside..get to the forest! Take the trip if you don't live near one. I am lucky and I know it. I live in the back of beyond and in nature. If I lived in the centre of Birmingham, maybe I might enjoy a video walk in a forest...I don't know! I feel a little agitated writing this. Just be bothered if you are...stop watch8ng shit videos, even if they are pretty!
(At this stage the email address on feedback mas set to mandatory, it is now optional)

BB

I totally understand that DS.

I think this form of 'Forest Bathing' (I think it might be called that?) has in mind many people in homes who cannot get such access maybe? So this brings these experiences to them?

DS

BB its about responsibility...if they want it...make it happen, somehow! I can't get deliveroo where I am...I have to cook! It's a ball ache, but it's probably a good thing! I can watch videos of a beautiful beach (my fav place) it leaves me wanting more! So..I have to save, if going abroad, or put petrol in my car and just go! This " stuff" kind of winds me up..its like loa and vision boards! Do nothing and expect everything

DS

BB I can't imagine you are aligned with this..you are just being nice?

BB

Not sure if we are on the same page here DS.

Yes I DO often take the mick at certain things but not here. You use the word aligned. And if we mean:

'giving support to a person, organisation or cause'

then yes, although I am not linked to this in any way, I do kinda' get it I think.

That some people (I can think of many) who will never be able to enter a forest or wood ever again through disability, I believe might enjoy this.

But like I said I think it's important to hear other opinions on this.

I for example personally wish I had something like this in my possession before almost dying in a walk through The Lairig Ghru. So...

DS

BB you are lucky maybe..and as I said, so am I. You live and have lived in or very close to nature. You and I are able bodied! So..we are lucky! However...for those that are not, yes, maybe! Maybe it's nice..surely the TV has done that or given that opportunity? I mean, back in the day, programs on TV when I watched it could transport me to Africa and the jungle. I could see elephants...and so on. Whilst NOW I could choose to see them for REAL and book a safari. That wasn't available to me then. Its a bit neither here nor there. The link you posted is in no way bad...however nature and the Internet cannot TRULY be in the same sentence

BB

Yes of course DS, I totally get that.

But my impression is that this is for a certain number in the 'bellcurve' who will like it, and others who get to simply relax in it because they have non other access to it.

DS

BB super! For them! If it works it works! Different strokes for different folks! I (I know this is a contradiction, because I am on it) I think we all need to burn our devices...and return to each other, nature and so on

MR

These videos aim to bridge the gap between the outdoors and indoors, allowing people to connect with nature virtually. The value of nature video lies in their ability to offer a glimpse into the natural world for those who may have physical limitations, live in urban environments, or lack access to natural spaces. These videos provide a sense of tranquility, relaxation, and connection with nature, which can have positive impacts on mental well-being. By showing the beauty and diversity of natural landscapes, I would say they can be highly effective in simulating the experience of being in

nature. These videos create a realistic image as if you were Walking or driving there yourself. I like the angle / pov the video's are taken in. Although I would not personally appreciate these video's, this is only due to the fact that I AM able to actually walk into nature myself, which I probably do take for granted too much... I would miss out on the feeling of the wind, the sunlight and the smell of the forest.

In terms of connecting people with nature from home, nature video are undoubtedly fit for purpose. I also like that you are Able to choose from a wide range of videos to provide for different preferences and interests. Hopefully you'll find my review helpfull.

VC

I've only watched one video but it was nice .

I understand what your friend is trying to do. I remember a website which allowed you to log into a series of webcams that just looked out of other people's windows so you could feel you were somewhere else.

Im also reminded of the ifit exercise platforms which runs on treadmills and exercise bikes with a view like this.

I think it's nice. My personal preference is for a static camera where the nature wanders in and out (a window style view) rather than a walk but I appreciate its horses for courses.

LS

I liked it. Music was a bit quick for me though if someone was watching the video to become calm or mindful so I'd like a slower track.

LS

Made me remember some videos by an old colleague of walking tours through cities except that was just the chatter of foreign languages walking by and cars.

PG

I'm not sure if he thinks there is anything original about this . One quick YouTube search , outdoor walks , will yield countless videos of higher quality and production , personally I last about 30 seconds of birdsong or gravel crunching so it's not for me but then I'm not housebound

BB

No he knows there is nothing original about this he is simply looking for something that might help People who can't have or DO things.

KT

Fordmill Care Home - Barchester Healthcare frequently give their residents

the most wonderful virtual travel experiences via film. I can see how these videos could be very helpful and beneficial.