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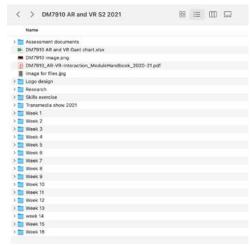
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Outline of project and outcomes

Project undertaken for the AR and VR module. Worked with the lecturer each week on a variety of relevant materials to bring our main project together. From the course seminars and the implications of the VR skills and software I would need, I changed the remit of the project from a VR submersed environment to an AR experience. I chose to concentrate on an AR engagement App for those suffering with Anxiety and stress, as I felt it was within my ability to utilise my current a skills and build new ones from the software we have been introduced to.

I found it helpful and relevant to keep a weekly blog/folder to all my research and thoughts week to week throughout the project. (See screen shot). Creating the blog gave me a chance to reflect and analyse the variety of pathways open to me, I was also able to make connections from the questions the project was unearthing and could see a pattern to my research: teaching, learning and user involvement through other scientific methodologies to the subject.



Learning goals

I identified in my proposal document the key areas I would need to work on these are:

- Develop the elements for the AR in Illustrator,
- Try out the items in Adobe Aero
- Develop the branding
- A collection of images that can express the tone of the brand
- Quickly develop the skills required to use Unity for an AR framework
- Keep the interaction simple and easy to use on a mobile phone
- Enabling a choice for the user within the App
- Gantt chart
- I aim to have set up one scene,
- Create an image target 'Fountain of Knowledge' for the program, with interactive buttons.
- Design of all the other elements for the AR landscape, trees flowers, birds etc. Also perhaps sourcing other interactive forms: movie clips, songs, images.

(Appendix 1 pg 14 of my proposal doc)



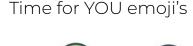
I set myself clear learning objectives to ensure the project achieve what I set out to, I was realistic in my expectations and thoroughly researched the topic. I do not have a background in psychology, so in order to identify the right Application and process it was necessary to read about the subject widely. Through my research I have come to understand more about anxiety – I do have personal connections to this with family members struggling to cope with their mental health, so this project has rewarded me with much more that my project goals.

The learning goals covered three main areas: Brand, User experience, new software (my own expectations of what I could achieve). The brand objectives played to my existing design skills, I thought about the end user and the cultural implications of building a brand that could involve anyone who wanted to use it. I developed two characters that I thought my brand would target – their story helped me to fulfil the place, I wanted the App to go. (Appendix 1 Project Marketing plan or access here: https://bit.ly/3inWOhp)

The development of the user experience though storytelling, interactivity, visual elements to engage and help with expressing feelings. These have been directly helped by my research into the gamification of the digital landscape, the history and uses of storytelling, from marketing to hypnosis and the ways of seeing.

The emoji character made me look to our societal use of imagery to give hints or clues at how we are feeling, the rise of the emoji is the perfect example. Social media platforms and text speak has provided more ways to communicate, and with this language it has developed into a cultural expression. The Nielson Norman Group published a great article on modifying your design for global audiences, thinking of not just translation but localisation too. (https://bit.ly/2ScNHWr)

The emoji concept became important to the App development as I required a way to measure the success of the interaction with the user, and help develop the narrative. I developed the notion that using this simple dialogue tool I could gain quick feedback and build a brand personality form this in the online world.







Chinese Emoji's concentrate on emotional features



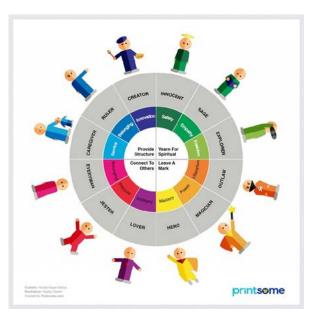
The brand building document (Appendix 5 Brand building doc.) helped me to answer the questions on what the brand stands for and the people it will speak to. Whilst my brand characters were female, this App could be used by anyone, those who are interested in reaching out and getting help.

In particular the research into brand archetypes. Through my research for the brand, the archetype theory from the work of psychoanalyst Carl Gustav Jung (1930's) produced extensive treatises in understanding the powerful relational effects of the human ego and the concept of brand archetypes was published.

There are twelve brand archetypes: The Innocent, Everyman, Hero,
Outlaw, Explorer, Creator, Ruler, Magician, Lover, Caregiver, Jester, and
Sage.

My App concept is a caregiver. Caregiver brands are all about warmth and trust. It wants to protect and their goal is to care for others.

The visibility of a branding concept makes it vital for an organisation to use the collective unconscious of a group, that fits the positioning strategy of that organisation in every way. Documenting this in The International Journal of Social Sciences and Humanities Invention · June



2016 - Stephen Poon examines if the colours in brand development can express an archetypical identity. In summing up his paper Poon says: "When design meets psychology through the creation of goods that tap our spontaneous imagination, it improves the value perception of the creative processes, and this forms the fundamental design ethos that enables businesses to gain return on investments for excellence in branding and marketing design."

For the App to develop and succeed I ensured:

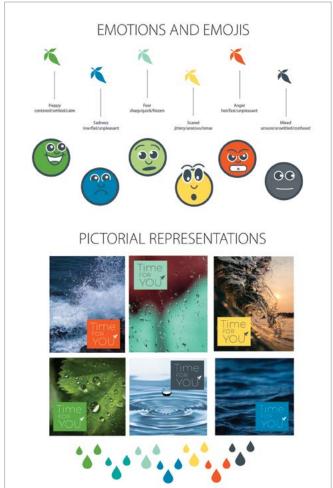
- Colour choices are socially sound (see next page)
- The narrative is one which my audience will engage with
- My brand needs to inspire confidence and medical assurity
- My stories in the App need to engage, influence, teach and inspire

- Data needs to be secure
- Mental security needs to be assured
- Archetypal identities catered for
- Narrative
- Gamification
- Contract obligations of the App use, data gathering needs to be detailed.



Brand build colours and characters, see this online at: https://bit.ly/2TfHTeY

















I realised that the brand had to develop and nurture a consciousness, a value, tone of voice and a personality so that it resonates with the audience. The significance of using the Time for YOU App provides alternatives to the competitor Apps on the market. I did a SWOT analysis to work out how it could be distinctive and where my strengths and weaknesses were.

The significance for the need of better mental health tools (post pandemic) I realised that for future App development collaboration with experts. A database would allow me to build a framework that we could tailor content to and welcome users back to the App. Personalise content through their previous feedback/interaction and the resources used within the App,

Time for YOU	SWOT analysis
Strength: Honesty,	Weakness: Develop into
Creative, Planning Ideas,	new creative areas, new
Value for money	business goals, new skills
Opportunities: Virtual	Threats: Time ,Lack of
reality, Augmented	money, Agency offering,
reality, 3D walk through	Too big a project
	l

would allow the Time for YOU brand to have a more meaningful dialogue with the user.

A customised journey map was required and this would be a next stage development, Tom Treanor @RtMixMktg tweeted: "The goal of all your marketing efforts is still to help customers—who come to you through many different media, channels and paths—to realize that your brand is the best solution for a particular problem. A good, customized customer journey map will help you understand how your customer searches for a solution"

The question my project was asking was with such pressure on health services in the UK (NHS) how could people access the care they need? The argument is convincing that if I could extend the quality of the interaction within Time for YOU App with perhaps via a link to a national network of therapists*, then the App could perhaps be monetise through user/therapist subscriptions. Allowing users much needed access to a therapist, in their home, and access mental health care would lead to finding one solution to a mental health crisis.

New software was a challenge for me as I have no experience in 3D or AR/VR tools, each week in the seminar we worked on building our ideas, and how we could implement those in the Unity platform. I felt challenged by my lack of knowledge of the Unity platform, I solved this issue by using other digital formats to be able to illustrate my ideas, and provide me with a back up if I was unable to create the App items in Unity. I found the use of Adobe Aero a good way to communicate the projects AR intentions and felt that it was successful in showcasing the AR ideas.

^{*} all of whom have regulatory bodies and professional memberships.



Technical development of the technologies and platforms

- Coding Sublime Text
- Scripting language used by Unity is #C
- Cross platform tool kits for headsets Unity XR
- Software Development Kits SDKs
- Use of ready-mades to illustrate a point (it was OK for Duchamp!) The problem was I wanted to produce and experience the design challenge of 3D work my lack of knowledge in this area I feel means my end result is not as successful as it could have been.
- Vuforia developer portal

The Fountain of Knowledge was the key AR action piece that was developed to illustrate the AR use within the App, user choice and intrigue, and a method for 'flowing' from one emotional area to another. Using the metaphor of water. I was able to use a ready-made fountain from the unity stock area and place it within my plain landscape I had created. The challenge was to add in the image packs and mesh looks Appropriately, I did find this difficult as working in the Cartesian coordinate system,

Platforms used:

- Adobe Aero
- Premier Pro
- Adobe XD
- Adobe InDesign
- Adobe Illustrator
- Photoshop
- Unity
- Blender

Static image code script (sublime) between two scenes using a button link

previous experience was with a game development area in Unity. So the implications of my lack of 3D skills did have an affect on the outcome of the project, I have found that the considerations I will need for this type of project development will assist me in the future and will be seen as transferable as my 2nd year module will be 3D design. Above is an example of the code language we used in our wk 11 course seminar.

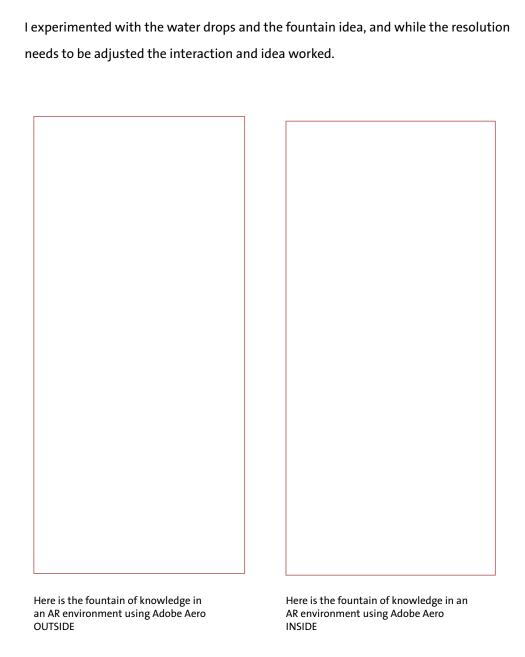
The criteria for the project I feel were still met as my own learning outcomes (See Appendix 1) and the use of a layered Approach (with information delivery in a variety of formats) within the project enabled me to develop new thinking. I developed tools for brand, audience interaction and survey, considering every aspect including colour and tone of information I feel was positive for the overall look of my project, and could prove that the project met its objectives.

I included surveys in my project to assist with my process, small groups added to my decision making, deeper level surveys would need to be carried out with my target audience to find out what they would want from a mental health App. I have made calculated assumptions that the App was right through my research: add book ref here. And the fact that there are a multitude of competitor Apps on the market. (Appendix 2 survey monkey examples)



We gave a box physical attributes and we coded an action (wk11) we made a new scene and a button to connect two scenes coding in Sublime.
Screen recording of the movement between button screen and cube
I think moving through the landscape was one of my key ideas, and these ideas could be developed further.
Screen recording of the moonscape in the Aero desktop space





By using the Fountain on inside and outside spaces illustrates that the App can work anywhere the user is, they can get the AR experience at a time and place to suit them.

Designed elements of the Time for YOU App

I worked on movie clips in Premier Pro to give a flavour of the content and the look and feel of a longer project as I could add these to play from a Unity landscape:





Stock image with my text - field feeling low

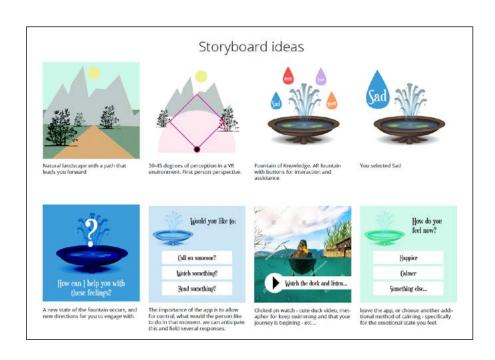
My film with text - Long movie water Breathe

Soundscapes

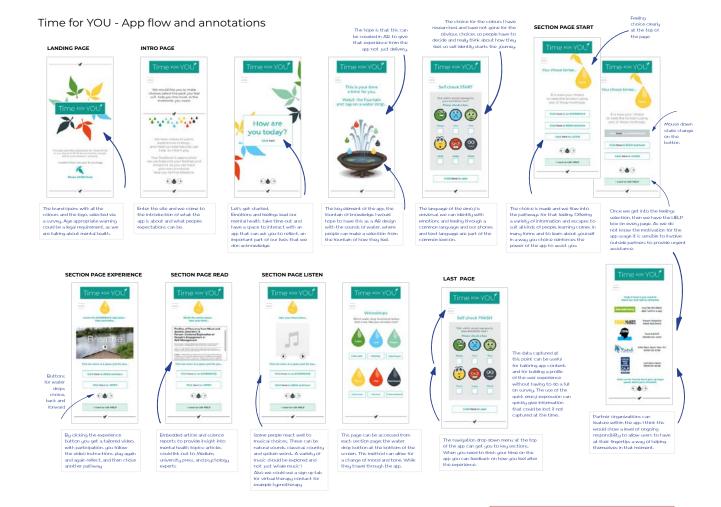
Available on the live web page: https://bit.ly/3pC8i2I along with examples of AR.

Storyboard from proposal doc JAN21.

I have added this here to illustrate that whilst the idea has not changed the thoughts and UX narrative for the space has moved on.



The annotated layout describes the interaction the user will have with the built App: https://bit.ly/3uYSKHe



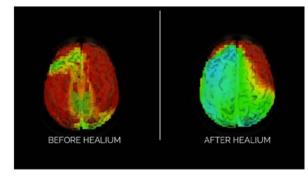
Time for YOU App prototype

Adobe XD to make a prototype of the Time for YOU App. Helping to illustrate the UX interaction, and how the AR and other content pieces could work together.

Key solutions provided by from Time for YOU App:

- An App that gives people with anxiety a choice of content.
- A tailored Approach to allow for learning requirements to access the information.
- Integrity of the App by using scientific research in all areas, from colour, psychology to solution focussed therapies
- Solutions with personalised feedback from the App to the user, the use of the emoji icons is easy and translatable into other languages

The Healium VR Application for an Oculus headset supports my initial ideas that therapy Apps can help anxiety. StoryUp Inc. - makers of the Healium platform (https://www.tryhealium.com/#stories) commissioned a report that illustrated the brain function before and after using a virtual world, the mind seemed calmer in the images "Our results support the notion that intentionally crafted VR experiences can be therapeutically effective, and may result in immediate, adaptive psychophysiological outcomes." (Tarrant Jeff, et Al. 2018)

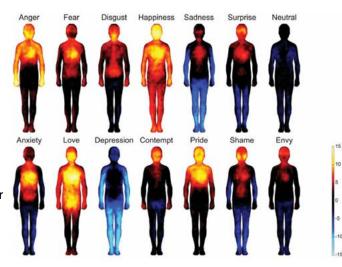


Brain scan from research by Healium.com

Healium has also expanded to an AR Application too, it can link with an Apple watch or a brain link headband to monitor heart rate. "It's a self-awareness tool that allows you to discover your ability to control your brain patterns and heart rate during guided meditations" (https://www.tryhealium.com/faq/). Healium's Approach is meditative and does have feedback

for the user in the form of a data tracker headband. The video VR experience is just how I would like Time for YOU to look.

The science from the brain scanner in Healium is also seen elsewhere. Lauri Nummenmaa psychologist at Aalto University led a study with over 700 people about how their body responded to emotion, the study called these 'body emoticons', the hope is that they may one day help psychologists diagnose or treat mood disorders (https://n.pr/2RFKY7A).



I felt that with my research and development of the App idea it would be good to have a conversation with a healthcare professional about it. I discussed my ideas with Clare Rusby Prof. Dip Psy C. A practicing Hypnotherapy and Psychotherapist, we discussed the benefits of Hypnosis to help people with stress and anxiety. A VR style interaction we both felt would help some people who are not able to visualise the hypnosis script, by not being able to do this it could take them longer to get into the healing process. https://mindandbodysolutions-southport.com - Huge thanks to Clare for taking the time to speak with me.

Taking advise about mental health and the benefits of movement, I spoke with a representative of the charity Stormbreak. Kate Bone has worked with the charity for over a year, and is an advocate for their Approach to helping children with their mental health (https://www.stormbreak.org.uk).

Stormboreak nature's pathway
Connect with nature and support children's mental health
Bruth and the continues and such a stormboreak to include the support of the continues and such as a stormbore a

Steeping stone activity sheet

Whilst children under 16 are not my target audience, the connection between nature and movement has a direct relation to the imagery I am placing into the App build.

Below is an email Q&A I conducted to formally round up some informal conversations we had previously had.

Exercise and those health benefits were part of the initial App idea.

A VR space could have allowed the user to engage physically in the environment via a headset.

The science is sound by increasing endorphins, people have up to a 30% lower risk of depression*

(NHS: https://bit.ly/3gpBCFs)

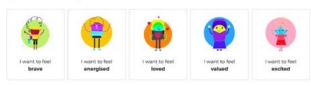
- 1. In a few words, why do you think Stormbreak is successful in delivering content to young people? It's fun, quick (5-15 mins) and accessible. Can be delivered by anyone and can be adapted to suit different presenting needs and challenges, different settings and contexts and for a range of children aged 4 – 11yrs. It's relevant and timely, effective and sustainable.
- 2. What evidence did Stormbreak use to build its charity?

We started with 5 pilot schools in Dorset, captured feedback after every session and worked with Bournemouth University to create an 'impact report' for the first years' work. This evidence of our success allowed us to bid for funding from BBC Children in Need.

3.Can you give an personal example of how you have seen changed behaviour in your clients mental health wellbeing?

- A boy who refused to learn to ride his bike (kept giving up), but after working on resilience based stormbreaks, he decided to keep trying until he eventually got it
- A chid in one of our foster care settings who refused to drink fluid (required a certain amount daily due to medical condition) as this was a way to exert control. The foster parent reported that after the 6 week Stormbreak Together programme, the child was now drinking
- A foster child who suffered from alopecia refused to take down his hood in public. After working
 through some self-worth stormbreaks, he now feels confident in removing his hood when he
 goes out
- A child who found it really hard to make friends was using 'Classroom Rockstars' in the playground and encouraging people to join him.
- An extremely withdrawn child who refused to join in with stormbreaks sat at the back of the class simply watching and listening. After a few weeks he slowly began to join in, until by the end of term he was at the front of the class leading the activity

How do you want to feel?



Emotions and feelings given characterisation to start the conversation with children via Stormbreak Personalisation of a user experience and integrating brand engagement relies on personal data. The use of personal data could come at costs to privacy: for example what happens to the activity level data from your fitness tracker? What happens to your privacy when you say you have a mental health issue? Contract obligations of the App use and reaching data gathering needs to be detailed (Week 12 blog https://www.scahilldesign.co.uk/post/s2-ar-vr-week-12)

My App development must provide a safe space, a trusted brand in order to allow full usage. The contract which people accept when downloading an App (but no one ever reads!) will ensure that the personal data is not going to impact peoples future life choices: insurance, medical cover etc... What we are in our 20's is not who we are in our 40's. General Data Protection Regulation was passed in 2018 to try and start to cover such issues. In the UK GDPR sets out seven key principles:

- Lawfulness, fairness and transparency.
- Purpose limitation.
- Data minimisation.
- Accuracy.
- Storage limitation.
- Integrity and confidentiality (security)
- Accountability.

My personal time line for the project was in the form of a gantt chart, I planned weekly interventions with a tutor after the seminars had finished. I keep working on my research throughout the semester, my Pinterest page was a particularly useful quick reference and ideas gathering (https://pin.it/1JKOHMp). I kept a filing system of my attendance at webinars and conferences, articles and thoughts website and audio recordings. The blog kept me thinking about the project and the ways in which I could develop it. I did reach a sticking point where I felt overwhelmed with the Unity program and couldn't find enough time to put into developing my skills required, I sought the advice of tutors and tried to keep myself on track.

I decided to review what I was trying to achieve with my tutor, I realised that I needed to actualise the imagery, and evoke the feelings into the project. The product developed of the App I set out a budget of at least 150k, keeping this in mind how could I expect myself to deliver and achieve all the outcomes on my own? This project would be a collaborative effort in an agency/workplace. I have seen my role on this project as creative director – bringing the ideas together in order that I can explain the concept and the benefits to others and professionals.

Conclusion

I wanted to make my App to address some of the issues that Lucas Chae, discovered in her article (Aug 2018) *Designing for suicidal users: preventing suicide the modern way* (https://bit.ly/2TVvLA9). She makes some valid points about the importance of contact, as the referral systems for mental health is not a one stop shop. The person reaching out has to go over their most painful story or event at least 4-6 times, with a variety of health professionals, from doctors to mental health teams, to therapists. All in a way that make you feel like you are bothering others, that you should be able to get through (this)... I would hope the extended version of my App could address this and get an active solution to assist, so I feel my idea is a success.

Partnership building and involving others. Through my research I found a lot of Apps that help anxiety and stress, but equally the scientific community who are finding ways to assist peoples mental health, the crossover between art and science is of great interest to me and a theme to my art. The need to build partnerships with other organisations such as the Samaritans, or young minds and CAHMs would be beneficial to the future roll out of an App to help others. I feel the success of speaking with others and those in healthcare/action groups proved my hypothesis that this model would be beneficial.

I have built and described AR forms that I could use in my product, the Premier Pro films could be made into AR files and dropped into the physical space of the user utilising a Ground Plane in Vueforia. A Ground Plane is only compatible with devices supported by Platform Enablers, ARCore XR Plugin on Android & ARKit XR Plugin on iOS, so developers would need to consider this for universal access (Appendix 8). I could use a Positional Device Tracker to place a film experience in a real world space. I have had to show my examples in Premier Pro as a prototype for a visual, but the development would need to use these methods.

Virtual reality options are staggering (Blog week 2 - https://bit.ly/3pyGfRD) my AR App could certainly have VR attributes, which I feel I have successfully outlined and given examples in this document. Navigation in the App should feel like and emergent story, this was something I did have to overcome. The App can take several paths for each user, much like a dungeons and dragons game where throwing the dice leads you to the unknown. The use of the water drops provide a symbol for your emergent story. The individual nature of each path could allow for user confidence in the product, the control and feelings of personalisation.

Appendices

Appendix 1 - PG 14 from my proposal doc DM7910

2021 . Semester 2 . DM7910 AR/VR Interaction Proposal - Tina Scahill

Review detailing the time line/workload:

- I aim to develop the elements for the AR in Illustrator, I might quickly try out the items in Adobe Aero to see how they look/will work.
- I shall develop the branding further after reviewing the logo feedback, this will assist in the direction for the development of the assets. The look and feel of the app will be styled out of a branding exercise, I cannot see the final app in my mind without the essential elements being organised.
- I will also get a collection of images that can express the tone I would like the app to aspire to.
- I need to quickly develop the skills required to use Unity and place items into an Augmented Reality framework.
- I aim to keep the interaction simple and easy to use on a mobile phone, image targets and links via AR buttons within the app should make it easy for the end user.
- Choice is a difficult task when you have anxiety, a loss of control. Enabling a choice at the outset I think will start the process within the app well.
- I will be meeting with my tutor each week, to keep the accountability to the progress open.
 I have also pinpointed several danger points in the Gantt chart when the majority of the AR needs to be in place. (Gantt chart - with threats see appendix 4)
- I aim to have set up one scene, as per the story board: appendix 5

- Create an image target 'Fountain of Knowledge' for the program, with interactive buttons. The design of the 'Fountain of Knowledge' is key to the interactivity, it defines the route the person will take in the app, based on how they feel, the user is to be in control.
- Design of all the other elements for the AR landscape, trees flowers, birds etc. Also perhaps sourcing other interactive forms: movie clips, songs, images.
- In my investigation I have found it useful to create a marketing plan. This has helped me to define the target market and estimate costs, also to understand where the app would be best place within the market.
 (Marketing plan: appendix 6)
- After my research of the benefits for AR/VR in helping anxiety, the aim of the app design is validated. Finding a competitor product called Healium AR, has also proven the app's worth within the well-being game field.
- These items will probably take me all of my 12 weeks project time, but will be able to fully extend the project if I am able to.
- Future requirements would be database development. The main driver of the application a Structured Query Language (SQL) system to offer chat bot assistance, offering choices for the person. The need for computer intelligence... or an imitation game (Turing 1950).

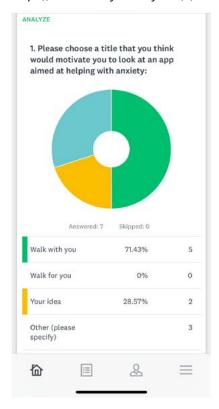
SCaHiLL DESIGN

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Appendices

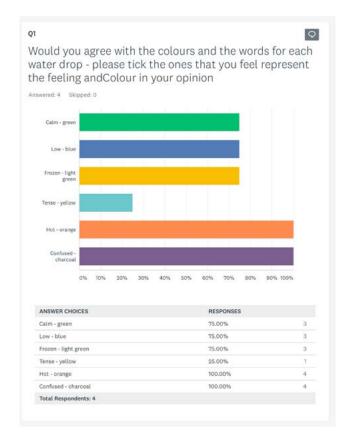
Appendix 2

Anxiety App name survey 1 Jan21 https://www.surveymonkey.com/r/6SDD6ZZ



Mental health App name survey 2 screen shot MAY21 https://www.surveymonkey.com/r/8XVXM52





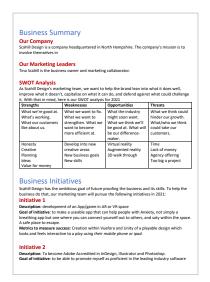
Colour choice Survey 3 https://www.surveymonkey.com/r/7CXXKFT

Appendices

Appendix 3 - PG 14 from my proposal doc DM7910 on open here for online version: https://bit.ly/3inWOhp







Target Market

Competitive Analysis
Within our target market(s), we expect to compete with the following com

Products we compete with: award winning Apple App Store app 2017. They have diversified phone app, apple watch and Apple TV. So a broad market approach. It is based on affirming techniques. And talks from recognized Drs and psychologists.

Other ways we compete: the same market, same tech savvy people, but there are also motivated to try other similar things so this could work in my favour. I would boost my promotion of the app by inviting others to write about the benefits of handling emotions well.

2. Mindshift CBT – Anxiety relief

Products we compete with: they have a psychological approach using Cognative Behavouria Therapy, way to help anxiety. A proven discipline and backed by Anxiety Canada Association using exercises that reframe thoughts and stay grounded.

Products we compete with: best mobile app award 20-20, best anxiety app 2019.

Uses audio encouragement and ways to help ease a panic attack, reducing stress and worry, and negative thinking. Yearly subscription \$59.99.

"Dut Ser harm and sadde A. puster (25.3) of 11.0.3 (syes-oith with a mental double had self-amend on allowed solid action and solid companies." The self-amend is allowed solid companies. The self-amend is disposed as having a mental disorder. In 17 to 19-year-olds with a mental doubler, ready half (46.89) had self-amend or made a suicide stempo (first office) and is active as and years (Matest mental come in wight of five to 19-year-olds had a mental disorder in 2017-misjor-mes same years).

This software is the closest thing I have found to my initial idea, it has VR applications through the Couls Headste and an AR application App for mobile devices. The background reading from the website illustrated the points I have been researching about the benefit of VR on Anxiety problems and the health benefits. This program is my biggest competition:

Over the course of [current year], given the cash allotted to the Marketing team, we expect to invest in the following items to ensure we meet the objectives outlined in this marketing plan:

Marketing Expense	Estimated Price
Marketing Software	£196,000 (Cost approx. via web search)
Event 1 [Hosting]	£232 (Cost approx. via web search)
Content Sponsorship [time period of campaign]	?
Pay-per-click - Facebook	96p per 1000 cusotmers
Advertising on Instagram	For CPM, or cost-per-impressions, advertisers pay £4.88 per 1000 impressions



Appendix 4 - Gantt chart 10.02.21

Month: February Tasks: formative oral present AR/VR proposal ess: core reading Storyboard the workings o project development: re Develop colateral ideas in I Upload ideas into Adobe Aero fo weekly tutorials Explore Unity for image targe Design a brand for the Design a project targe Creation of APP/wor BLOG Month: march Tasks: weekly tutorials Unity for app creatic Develop colateral in Illustread and teach myself the prog	f the App search Illustrator ir look and feel et creation app get	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20 2	1 2	2	23	24	25	26	27	28	29	30	
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Brand building for Anxiety App DM7910 AR and VR S2 2021





Business Name: Time for YOU **Service:** Mental health wellbeing app

Understanding your audience: Who is your ideal client?

Some one male or female, who wants to understand themselves better. Who is a seeker of knowledge and needs some space to themselves.

What do you know about them?

They are from a variety of age brackets: 16-21 young adult, and 22-34 older adult and then 35-55 midlife.

They are busy and facing challenges in their lives, where perhaps they don't have people to talk to in the first instance, or they are overwhelmed by a young family themselves or in the older midlife bracket they are dealing multi-generations. People need a safe space and assistance in a trusted space that can assist learning and understanding.

Where are they hanging out online?

- 16-21 young adult: Instagram, Tik Tok, Discord
- 22-34 older adult: Instagram, Linkedin, Facebook, Tik Tok.
- 35-55 midlife: Facebook, Instagram, Pinterest, Linkedin

What other business are they buying from?

Online post pandemic the trend for mobile usage influence and purchase is strong.

What is important to your clients?

Trying to find a way through their emotional needs to be reassured that they can help themselves and how they can access good knowledge banks.

What are their fears and frustrations?

Young peoples mental health services are at breaking point, Doctors are difficult to get to see and while mental health is being discussed it seems that the onus is on the individual to help themselves and this is where the app is best placed to provide support and knowledge sharing with partner websites and access

Your brand mission and vision:

What is your mission statement?

Time for YOU can help the individual make choices about their emotions and be useful to understand themselves better.

What is your vision for the business?

To provide a space, to interact, escape and think.

Describe your brand

Plain speaking, simple and clean, clear paths to access help/knowledge and interactions. Choice.

Crafting your offer

What do you do?

Help people with the challenges of mental health

What problems does your offer solve for your client?

Allow them a space that they can take themselves to as if you would book a counsellor time. Booking time for themselves.

Describe the situation before they use the product? Exhausted, anxious, confused.

What is their outcome after they use your product?

Finding some useful information or escaping using their phone to produce and interaction that delivers a sense of peace and space.

What do you love about what you offer?

Helping people

What could you do more of?

Bring partner organisations into the app to reach the same people some of who could be vunerable.

Your brand personality

How do you want people to feel the first time they encounter your business?

A space to call their own, a go to place for answers and help.



Appendices static images

Appendix 6- Static examples of landscape AR





Static image of the fountain in the unity built world.

Static image first scene the cube...



Static image moon scape



Static image desert scape

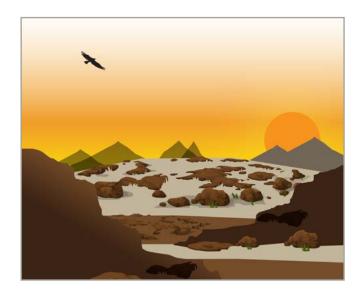


Static image of fountain inside

Appendix 7- Landscapes x 4 designed in Illustrator by T Scahill









Appendix 8- Feature support per platform

https://docs.unity3d.com/Packages/com.unity.xr.arfoundation@4.1/manual/

Feature Support Per Platform

You can refer to this table to understand which parts of AR Foundation are relevant on specific platforms:

	ARCore	ARKit	Magic Leap	HoloLens
Device tracking	✓	✓	✓	✓
Plane tracking	✓	✓	✓	
Point clouds	✓	✓		
Anchors	✓	✓	✓	✓
Light estimation	✓	1		
Environment probes	✓	✓		
Face tracking	✓	4		
2D Image tracking	✓	✓	✓	
3D Object tracking		✓		
Meshing		✓	✓	✓
2D & 3D body tracking		✓		
Collaborative participants		✓		
Human segmentation		✓		
Raycast	✓	✓	✓	
Pass-through video	✓	✓		
Session management	✓	✓	✓	✓
Occlusion	1	✓		

References:

- Chinese emoj: https://qz.com/1329379/wechats-exclusive-emojis-express-emotions-western-Apps-cannot/
- https://news.cgtn.com/news/2020-07-17/Correctly-use-WeChat-emojis-to-impress-your-Chinese-colleagues-SbY099qCNG/index.html
- Healium website available at: https://www.tryhealium.com/#stories
 Tarrant Jeff, Viczko Jeremy, Cope Hannah, Virtual Reality for Anxiety Reduction Demonstrated by
 Quantitative EEG: A Pilot Study, Journal Frontiers in Psychology. VOLUME 9, 2018.
 Available at: https://www.frontiersin.org/articles/10.3389/fpsyg.2018.01280/full [Accessed Jan. 2021]
- https://www.gsk.com/en-gb/media/resource-centre/covid-19-prompts-increased-focus-on-self-care/
 [Accessed June 2021]
- https://www.tryhealium.com [Accessed February 2021]
- https://www.npr.org/sections/health-shots/2013/12/30/258313116/mApping-emotions-on-the-body-love-makes-us-warm-all-over?t=1623231119918
- Fleming, N.D. and Mills, C. (1992). Not Another Inventory, Rather a Catalyst for Reflection. To Improve the
 Academy, [online] 11(1), pp.137–155. LINK: researchgate.net/publication/241605288_Not_Another_
 Inventory_Rather_a_Catalyst_for_Reflection
 [Accessed March 2021]
- University of Pennsylvania website Dr. Seligman Flourish: A Visionary New Understanding of HAppiness and Well-Being (2012) PERMA theory available at: https://www.authentichAppiness.sas.upenn.edu/learn [Accessed Feb. 2021]
- https://www.simplypsychology.org/maslow.html [Accessed June 2021]
- Mirrors Edge game, 2016, Developers: DICE, EA Mobile, IronMonkey Studios, Borne Games. Designers:
 Jarrad Trudgen, Viljar Sommerbakk
- Robert Pratten (2015) Getting Started in Transmedia Storytelling: A Practical Guide for Beginners 2nd
 Edition, CreateSpace Independent Publishing Platform ISBN-13: 978-1515339168 [Accessed June 2021]
- Clare Rusby Prof. Dip Psy C https://mindandbodysolutions-southport.com
- Jones, C.M., Scholes, L., Johnson, D., Katsikitis, M. and Carras, M.C. (2014). Gaming well: links between video games and flourishing mental health. Frontiers in Psychology, [online] 5(260). Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3978245/ [Accessed June 2021]



- Kaplan, J,S. Phd Tolin, D, F. Phd, Exposure Therapy for Anxiety Disorders . Psychiatric Times, Vol 28 No 9,
 Volume 28, Issue 9 September 7, 2011 Available at: https://www.psychiatrictimes.com/view/exposure-therapy-anxiety-disorders [Accessed Feb. 2021]
- Tom Treanor @RtMixMktg twitter feed. [Accessed March2021]
- Smithsonian Libraries, The Science of Colour, available at: https://library.si.edu/exhibition/color-in-a-new-light/science [Accessed Feb. 2021]
- NNGroup: https://www.nngroup.com/articles/crosscultural-design/utm_source=Alertbox&utm_campaign=bc89683062 [Accessed May 2021]
- Survey monkey results to colour choices: https://www.surveymonkey.com/results/SM-NKWZDQ3V9
- Script for fountain: https://mindfulnessexercises.com/visualizing-a-fountain-for-healing/ [Accessed May
 2021]
- Article: McShane M., September 16, 2015 :https://www.allinahealth.org/healthysetgo/thrive/the-health-benefits-of-guided-imagery [Accessed May 2021]

Bibliography

Books:

- Cawood, Stephen. (2008) Augmented Reality: A Practical Guide: The Complete Guide to Understanding and
 Using Augmented Reality Technology. Pragmatic Bookshelf
- Shneiderman, B, Plaisant, C, Cohen, M, Jacobs, S, Elmqvist, N, & Author 2017, Designing the User Interface:
 Strategies for Effective Human-Computer Interaction, Global Edition, Pearson Education, Limited, Harlow,
 United Kingdom. Available from: ProQuest Ebook Central. [6 February 2021].
- Craig, A.B. (2013). Understanding Augmented Reality: Concepts and Applications. San Diego: Elsevier
 Science & Technology Books.
- Hale, K.S., & Stanney, K.M. (Eds.). (2014). Handbook of Virtual Environments: Design, Implementation, and Applications, Second Edition (2nd ed.). CRC Press. Available at: https://doi.org/10.1201/b17360 [Accessed Jan. 2021]
- Shah, R. (2015). Master the art of Unreal Engine 4: Blueprints: creating a 3D point 'n click adventure! Kitatus Studios.
- Ledoux, J.E. (2016). Anxious: using the brain to understand and treat fear and anxiety. New York: Penguin Books.



Journals:

- Brown D., 2012, Game-playing-role The suspension of Disbelief in Video games, Thesis School of Arts,
 Brunel University https://www.researchgate.net/publication/304173574 [Accessed March 2021]
- Johnson, Daniel, Nacke, Lennart E., and Wyeth, Peter, (2015) All about that base: Differing player
 experiences in video game genres and the unique case of MOBA games, Proceedings of the ACM
 Conference on Human Factors in Computing Systems, ACM Press, New York, 2265–2274.
- Moser, Mary Anne; MacLeod, Douglas; (1996) Banff Centre for the Arts. Immersed in technology: art and virtual environments Publisher Cambridge, Mass. MIT Press.
- Tarrant Jeff, Viczko Jeremy, Cope Hannah, Virtual Reality for Anxiety Reduction Demonstrated by
 Quantitative EEG: A Pilot Study, Journal Frontiers in Psychology. VOLUME 9, 2018. Available at: https://www.frontiersin.org/articles/10.3389/fpsyg.2018.01280/full [Accessed Jan. 2021]
- Media CCC.de (2018) Patrick Reipschlager, (2018) Augmented Reality: Bridging the gap between the
 physical and the digital world available at: https://media.ccc.de/v/35c3-9623-augmented_reality_
 bridging_the_gap_between_the_physical_and_the_digital_world [Accessed Feb. 2021]
- Wolters, Maria; Mclay, Robert; et al. (2014) Experiential Virtual Scenarios With Real-Time Monitoring
 (Interreality) for the Management of Psychological Stress: A Block Randomized Controlled Trial. Journal of
 Medical Internet Research, volume 16. Contributor Gunther Eysenbach Volume 16 Available at: https://
 archive.org/details/pubmed-PMC4115267 [Accessed Jan. 2021]
- Swink S., Game Feel: A Game Designer's Guide to Virtual Sensation https://books.google.
 co.uk/books?id=3oFjDwAAQBAJ&lpg=PP1&dq=Swink%2C%20Steve%20game%20
 feel&lr&pg=PA5#v=onepage&q=Swink,%20Steve%20game%20feel&f=false [Accessed March 2021]
- Brand, J. (2012). Digital Australia (2012). National Research Prepared by Bond University for the Interactive Games and Entertainment Association. School of Communication and Media, Faculty of Humanities and Social Sciences, Bond University. (Cited in Jones Et Al 2014)
- Jones, C.M., Scholes, L., Johnson, D., Katsikitis, M. and Carras, M.C. (2014). Gaming well: links between video games and flourishing mental health. Frontiers in Psychology, [online] 5(260). Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3978245/.
- Riley S. (2019) Attention and Distraction. In: Mindful Design. Apress, Berkeley, CA.
 https://doi.org/10.1007/978-1-4842-4234-6 1 [Accessed Dec 2020]



Online research:

- Don Norman and Jakob Nielsen (1993) Nelson Norman Group, available at: https://www.nngroup.com/ articles/definition-user-experience/ [Accessed Feb. 2021]
- https://www.nngroup.com/articles/crosscultural-design/?utm_source=Alertbox&utm
 campaign=bc89683062-EMAIL_CAMPAIGN_2020_11_12_08_52_COPY_01&utm
 medium=email&utm_term=0_7f29a2b335-bc89683062-40653966 [Accessed May 2021]
- Start App development complete guide, edvicehub (2021), https://www.edvicehub.com/how-tostart-App-development/ [Accessed Feb. 2021]
- Statista (2020) Augmented and virtual reality (AR/VR) headset shipments worldwide from 2020 to 2025 (in millions) available at: https://www.statista.com/statistics/653390/worldwide-virtual-and-augmented-reality-headset-shipments/ [Accessed Feb. 2021]
- Forsey C., @cforsey1, How Brands Can Nurture and Develop Emotional Intelligence (and Why It Matters)
 https://blog.hubspot.com/marketing/brands-emotional-intelligence?utm_campaign=Marketing%20
 Blog%20-%20Daily%20Emails&utm_medium=email&utm_content=101562071&utm_source=hs_email
 [Accessed Feb 2021]
- NHS: https://www.nhs.uk/live-well/exercise/exercise-health-benefits/ [Accessed June 2021]
- Children mental health charity: https://www.stormbreak.org.uk [Accessed June 2021]
- Bodily maps of emotions: https://mindfulnessexercises.com/mindfulness-of-emotions/paper [Accessed
 June 2021]
- Eckman, P., http://atlasofemotions.org/#continents/fear [Accessed March 2021]
- Hietanen, J.K., Glerean, E., Hari, R. and Nummenmaa, L. (2016). Bodily maps of emotions across child development. Developmental Science, 19(6), pp.1111–1118. https://www.pnas.org/content/pnas/ early/2013/12/26/1321664111.full.pdf [Accessed June 2021]
- Lucas Chae, Aug 26, 2018, Designing for suicidal users: preventing suicide the modern way https:// uxdesign.cc/preventing-suicide-the-modern-way-86a816e2bf07 [Accessed March 2021]
- https://www.interaction-design.org/literature/article/augmented-reality-the-past-the-present-and-thefuture [Accessed May 2021]
- https://docs.unity3d.com/Packages/com.unity.xr.arfoundation@4.1/manual/index.html [Accessed Feb 2021]



- Water shading: https://blogs.unity3d.com/2021/02/05/introducing-shader-graphs-new-master-stack/
 [Accessed Feb 2021]
- https://digital.nhs.uk/news-and-events/latest-news/one-in-eight-of-five-to-19-year-olds-had-a-mentaldisorder-in-2017-major-new-survey-finds [Accessed March 2021]
- The Power of Plato's Cave [podcast] by David Nicholson (2018) (9 mins in) Interview with Professor Grace
 Ledbetter from Swarthmore College. Available at: https://archive.org/details/podcast_out-cave-podcastfor-t_the-power-platos-cave_1000402519193 [Accessed Jan. 2021]
- https://library.vuforia.com/articles/Training/getting-started-with-vuforia-in-unity.html
- https://library.vuforia.com/features/objects/object-reco/how-to-use-object-recognition-in-unity.html
- https://developer.oculus.com/documentation/unity/https://circuitstream.com/blog/oculus-unity-setup/
- http://www.theverge.com/a/virtual-reality/intro
- http://www.uxofvr.com/#article
- https://www.ces.tech/Topics/Immersive-Entertainment/Augmented-Virtual-Reality.aspx
- https://www.quora.com/What-is-virtual-reality-Why-is-it-important-to-computer-science
- http://uploadvr.com/why-now-is-the-most-important-time-for-virtual-reality/
- https://www.youtube.com/watch?v=bwGHGIDYkeA
- https://library.vuforia.com/articles/Training/getting-started-with-vuforia-in-unity.html
- http://www.creativebloq.com/ux/the-user-experience-of-virtual-reality-31619635
- http://www.vrinflux.com/the-basics-of-virtual-reality-ux/
- https://uxdesign.cc/design-practices-in-virtual-reality-f900f5935826#.egc7lzhuy
- https://getuplift.co/color-psychology-guide/
- Alto University study on body affects of emotion: http://becs.aalto.fi/~Inummen/participate.htm

