

My Internal/External Examiner Assessment Overview

MA by Research, School of Media, Art and Design

Purpose of this Document

The School of Media, Art and Design's MA by Research is offered in full accordance with the regulations stipulated in the Programme's 2014 Validation Document. However, given the flexible and varied approaches to research supported by this particular MA by Research, it is worthwhile mapping these nuances more clearly to help support the Internal/External Examination process.

Available Modes Research

Two alternative modes of research are available to students undertaking this MA: thesis mode or practice-based research (PBR) mode.

Written Thesis Mode

Written thesis: 25,000 words. The presentation of the contents of thesis-based work will follow the guidelines set out for the submission of bound written work by the Graduate School.

Practice-Based Research Mode

PBR portfolio of between 15,000–20,000 words equivalent accompanied by a critical analysis of between 5,000–10,000 words (total word equivalent not to exceed 25,000). The type of practice undertaken will vary widely across the disciplinary areas of the School and the scope and scale of the practice will be defined on an individual basis by the student in conversation with their Supervisory Team. The practice will be accompanied by a critical analysis that will seek to contextualise the practical work undertaken and interrogate how the practice advances, unpacks, or problematises the overarching research question(s). **To help orientate the Internal/External Examiners each PBR submission will include a one-page covering statement, which will provide a succinct overview in lay terms of the submission's constituent elements.**

Exhibited work can be viewed ahead of the first assessment/or viva, but should only be viewed to help inform the final assessment. Viewing exhibited work does not constitute a discrete assessment point.

Dr Chris Pallant

Programme Director, MA by Research, School of Media, Art and Design

PBR: One–Page Covering Statement

This thesis aims to explore the relationship between graphic design and mental health. Since the early 2000s, awareness of mental health and wellbeing has risen up the public agenda, becoming discussed and explored even more, as its effects on people are showcased in a call for the notions around mental health to be less of a taboo subject.

This research utilises autoethnography as a way to explore a personal account of **mental ill-health** and explores research through design to communicate the findings. Developing from these findings, the project changes direction to see how a specific target audience could use a similar process to better understand how they are feeling, and perhaps the reasons why. Utilising an algorithm, the recorded data would also link to a set of suggestions of help that the user may need in order to better their mental wellbeing.

There are two main elements in this Masters by Research submission; the first is a written thesis which looks to account my methodology and approach, analysis of research and details of the practice–based submission. The second is a practice–based submission, which consists of the design and application concept for ‘Animo’, where this research is formed into a brand and showcased through the design process, leading to full brand guidelines. This also includes the elements designed for the research process for participants to record and analyse their own mental health and the results suggestions intended to aid them.

This research looks to explore the communication of mental health and recorded data to help myself better understand my emotions and state of wellbeing, and to then utilise that learning as a means of allowing an audience to pursue a similar process to also better understand their mental health, and find ways to help improve mental wellbeing.

Communicating Mental Health through Graphic Design –

Investigating the role of graphic design for the facilitation of communication regarding mental health data.

By

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Thesis submitted

MA by Research

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1. Abstract

Once seen as a taboo subject, the rise in mental health issues and awareness of mental health issues has seen the subject matter gain more social and medical interest by professionals and the general public. However, for those who suffer with mental health issues, it can often be hard to notice when your change in mood is happening and what might have been causing it until it's too late and professional help is required.

This multi-disciplinary research project utilises autoethnography and existing literature to explore mental health from the researcher's perspective, to help initiate further research using a practice-based, research by design approach to explore how graphic design can communicate a state of mental health to an end user.

This research looks at how mental health data can be recorded and re-communicated back to a user to help them define their mood and find ways to help them improve their mental wellbeing. This has been done through designing a participant response task that required daily recorded analysis of how the user was feeling and the reasons why. This paired with utilising semi-structured exit interviews allows us to gain a better understanding of how the process worked and could be refined.

The research argues that a method in which users can record their mental health data and review their input can look to have a positive effect on identifying a change in mood and understanding why that might have been. This response task informs the user of their current state of wellbeing, allowing them to review this and encourages them to take action and offers support before their mental health deteriorates.

2. Key Terms

Subject terms

- Mental Health: A person's condition with regard to their psychological and emotional well-being.
- Mental Illness: A medical condition which causes disorder(s) in a person's behaviour or thinking.
- Wellbeing: The state of a person being comfortable, healthy, or happy.
- Autoethnography: "Research, writing, story and method that connect the autobiographical and personal to the cultural, social and political" (Ellis, 2004)
- Research by Design: "Research By Design or Practice Based research as the type of academic investigation through which design is explored as a method of inquiry, by the development of a project and also exploring the different materials by which a design is carried out – sketches, mapping, among others." (Barbosa, et al., 2014)
- Research-through-design: "...the concept of design as research – either *applied research*, where the resulting knowledge is used for a particular application, or *action research*, where the action is calculated to generate and validate new knowledge or understanding ..." (Frayling, 1993)

Abbreviations

- WHO: World Health Organization
- GDPR: General Data Protection Regulation

Design terms

- Data visualisation: The representation of information or data in the form of a chart, diagram, picture, etc.
- Typography: The art and technique of arranging type to make written text readable and appealing when displayed.
- Brand guidelines: A document which sets out how to use the design elements of a company's brand.

3. Introduction

The relationship between graphic design and healthcare has existed for many years, albeit predominantly unnoticed. Design has not traditionally been viewed as an essential part of healthcare (Farr, 2015), but changes in public attitudes as well as increased scientific research has seen the role that graphic design holds in the healthcare sector change, and the need for good design and clear communication has become even more important.

In recent years, we have seen issues around healthcare being discussed more publicly, and most recently there has been a keen interest amongst governments, charities and millennials to see mental health and wellbeing prioritised. According to leading mental health charity 'Mind', one in four people will experience **mental ill-health** every year (Mind, 2018) The increased awareness and understanding of mental health has led the UK government to further acknowledge the need to help those suffering from **mental ill-health**. Prime Minister, Theresa May, stated in January 2017 "...in the National Health Service, we see 1,400 more people every day accessing mental health services" (May, 2017). With an increase in demand of those accessing mental health services, it has seen Clinical Commissioning Groups within the NHS increasing spending to £9.72 billion in 2016/17, an increase of 6.5% on the previous year (Milne, 2017).

We all have mental health; it's the state of our emotions, which also includes our psychological and social wellbeing. Our mental health can determine how we handle stress, how we are in social situations, decision making and how we feel, think and act. Leading charities including 'Mind', 'MQ' and 'Mental Health UK' have all released campaigns around the awareness of mental health, and trying to examine the **stigmatisation** that surrounds it. In 2017 fashion brand Topman teamed up with 'Calm' to release their #DontBottleItUp campaign. Aimed at encouraging men to speak out about their mental health, and to try and erase the **stigmatisation** surrounding mental health, particularly in men.

Using a research-through-design approach, I aim to explore the relationship between graphic design and mental health. In order to communicate issues surrounding mental health and the concept of self-diagnosis amongst a creative audience, I will study my mental health through the medium of graphic design. As a graphic designer, and someone who has

dealt with mental health issues in the past, this project enables me to explore my passion for creative outputs along with a subject not only close to myself, but also becoming more culturally recognised and debated. This multi-disciplinary project will utilise autoethnography and narrative inquiry to pursue a personal account of **mental ill-health**, and initiate research through design to investigate the communication of data relating to daily accounts of thoughts and feelings; experimenting with design techniques and further enquiry based on critique.

4. Methodology and Approach

4.1 Methodologies: Autoethnography & Research through Design

Described by Carolyn Ellis (2004) as ‘research, writing, story and method that connects the autobiographical and personal to the cultural, social and political’ autoethnography has allowed me to describe and analyse personal thoughts, feelings and experiences within the written and practice-based areas of my research to gain a better understanding of its meaning within sociocultural contexts. This way of approaching the subjects of design and mental health allows me to influence my research and development process through exploration into my individual experiences and allow cultural references and critique of my work to sway the direction of my research in a more socially productive way.

Autoethnographic research requires a level of critical awareness to contest historical and social cultures and helps to elevate the personal and emotional reflection within my research to connect with a wider understanding of its social and cultural environment, “Autoethnographic stories are artistic and analytic demonstrations of how we come to know, name, and interpret personal and cultural experience.” (Adams, et al., 2014). Sociologist Charles Wright Mills (2000) debated that those researching topics within a social context should develop ‘sociological imagination’, which he describes as the need to make private issues public concerns by people who strive to be as perceptive as possible about the relationship between their biographies and the sociocultural historical context in which these are situated. This again lends itself quite beautifully to design, as when creating work, a designer can utilise an imaginary capacity to depict what is not yet visible and what needs to be communicated.

Autoethnography has been utilised within practice-based research, as the method allows for reflexivity of the researcher in a way that adds to the understanding and momentum of a project. Some see autoethnographic work as ‘performance’, combining a storytelling narrative with the likes of fine arts and film. A harrowing example of this combination has been the focus of ‘Animationtherapy’ by Susan Young (2019). By using her trauma, Young explores how the experiences of those who have suffered psychological trauma can be

represented through animation, to help them to process their experiences. She is able to direct this project and its research through her own experiences, and by following the principles of reflexivity and self-reflective case studies, Young can observe her work and reassess the animations through internal dialogue and her emotive responses. This gives her, as the researcher, a great insight into evaluating if the project is hitting its aims, and also drives more change and development to the research.

What has been evident from my research into autoethnography is the advantages of utilising a narrative inquiry method. In one discussion, Frank notes that people tell stories, but narratives come from the analysis of stories. Therefore, the researcher's role is to interpret the stories to analyse the underlying narrative that the storytellers may not be able to give voice to themselves (Frank, 2000). This is often utilised by contemporary artists, who “rarely tell straightforward narratives employing standard narrative tropes available within their culture, but rather ironize, layer, and otherwise subvert the standard tropes from a position of extreme cultural self-consciousness” (Mateas & Sengers, 1999)

This exploration into the concept of autoethnography has encouraged me to explore my work on a level of critical self-assessment, to set a balance between academic and methodological practices with those of a creative and emotional nature. I have been able to explore vulnerability as a way of understanding personal recollection in a social context, as well as look to create a relationship with audiences to compel a response that may help progress both the lives of those in the audience and myself as the auto-ethnographer.

Along with utilising autoethnography as methodology, my proficiency in design will be key to researching and developing this project. Frayling splits research-through-design into three approaches; materials research, development work and action research. A research diary that tells of a practical experiment and the resulting report aims to contextualise it. Both the diary and the report are there to communicate the results (1993).

I have been able to create projects based on my research and ideas to explore the communication of mental health by investigating practice-based research. Candy explains this way of working as, “...an original investigation undertaken in order to gain new knowledge partly by means of practice and the outcomes of that practice” (Candy, 2006).

This methodology allows me to analyse my work to see if it achieves its aims, and then continually develop my creative experiments to see that it works effectively.

4.2 Approach of the Researcher

I have always been a worrier; someone who can overthink situations or thoughts and blow them out of proportion. But previously worrying had never held me back or got in my way; I thought that kind of thinking was a part of who I was. However, over time these unhelpful thinking trends started to develop and evolve, getting worse as time went on.

With panic attacks increasing and the unhelpful thoughts I was having keeping me awake at night, I decided that something wasn't right and sought help from my GP. It wasn't until he got me to start talking about what had been going on with stresses of work, personal issues and bereavement that he concluded I was suffering from depression. This wasn't a concept I could easily accept, as I was brought up to have a 'keep-on-going' attitude and depression was something that people with serious life issues would get, or so I presumed.

Slowly, I started noticing more changes in my behaviour. The thoughts I was having around my current job as a Graphic Designer and the work I was doing became negative. Creatively, I was spent. I would often overthink my designs and end up left with lingering thoughts that my work wasn't good enough, and that I wasn't good enough. Other events unfolded which continued to build up new worries and anxieties, leaving me feeling especially vulnerable.

According to mental health writer Matthew Haig, therapists will often identify an intense change in someone's life as a major factor in triggering mental health problems (2018). When starting therapy for the first time, I wondered how much a therapist could learn about me and my mental state through simply talking. Through our discussions, my therapist concluded that my self-doubt and anxiety around doing things right or well, constantly worrying about being good enough and traits of perfectionism stemmed back to the way I had been treated and spoken to in a previous job. Paired with changes within a recent job, this had then brought about new fears of loss and not being good enough, that all accumulated to my recent low moods and anxiety.

The way I was treated at my previous job left some psychological scars that I wasn't aware of. It wasn't until I was able to talk through the situations that I had previously found myself in that I was able to realise the way I had been treated and the way I was feeling, as a result, wasn't okay.

Being diagnosed with depression didn't stop the way I was feeling. It didn't help me sleep at night when unwanted thoughts and hypothetical worries took over my mind. It didn't help me gain an appetite, nor did it explain why I could cry for what appeared to be no reason; What it did do is make me ask the question, how did I get to this point? Were there things I could have done or noticed sooner to help me understand what I was feeling? What was making me feel this way?

This is where my project has its origins. Design and creativity are a part of me, it's what I do and probably what I'm best at, so was there a way I could look at taking the strongest part of myself and use it in a way that could support my mental health? By exploring this connection between graphic design and my mental health, I was keen to research means of recording my thoughts and feelings. Exploring how this data could be utilised and formatted to help understand what I was feeling and why, and at the same time look to inform a creative audience that may also come up across the same difficulties and struggles I did. I wanted to be able to give them an insight into the mental health of a designer, and possibly to find strategies to help them understand their own. I myself am a part of this project, as opening up about my own mental health in order to find more of an understanding in how I feel has kept me close and thoroughly invested in this research.

5. Understanding Mental Health

5.1 Cultural and sociological standing

According to The World Health Organization, 1 in 4 people are affected by mental health issues at some point in their lives, and 3 out of 4 people with severe mental health disorders receive no treatment (2019). The World Health Organization defines mental health as “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community.” (2018) They go on to determine that **mental ill-health** can be attributed to elements such as rapid social change, stressful work conditions as well as specific psychological and personality factors that can make certain people more susceptible to mental health problems.

In recent years, there has been a prominent change to the discussion around issues of mental health. The previously taboo subject has been given a much-needed push into the limelight, meaning that those who before felt that they couldn't or shouldn't talk about their mental health and struggles are now more likely to come forward and seek help for themselves. In the Mental Health Action Plan 2013-2020, a document released by the WHO (World Health Organization), it's clear that this is a topic that is not only being recognised all over the world but also being seen as needing the attention, funding and support that some of the world's biggest charities and governments can give. But this isn't just an issue to have been seen and recognised by governments and large organisations. More and more people are starting to come forward with their experiences of poor **mental health, celebrities** and well-known public figures have increasingly come forward to help open the discussion around mental health and encourage more and more people to seek help.

In 2017, the mental health research charity MQ released their bold 'We swear' campaign (Fig.1), showcasing an array of UK celebrities including BBC Radio 1 DJ and mental health advocate Gregg James, Olympic gold medallist Nicola Adams and musician Tom Yorke among many others.



Fig. 1 (MQ Mental Health, 2019)

By featuring a broad range of celebrities, the campaign conveyed the message that mental health issues can affect anyone. The use of the black and white photography means that the celebrity in the image becomes secondary to the message, which is the key element to this campaign. The 'tongue in cheek' nature of assumed cursing within the key message, which is then erased and drawn out by the MQ brand colour yellow is a clever but simple visual. It not only emphasises the 'we swear' element of the campaign in swearing a promise to support mental health research, but also by allowing the reader to 'fill in the blanks' it creates a more light-hearted feeling in contrast to the otherwise heavy subject of depression and **mental ill-health**, making the subject matter more approachable for a wider audience. The sentiment is clear; it encourages those with issues to speak out and shout it out loud because it needs to be communicated.

6. Design responses

By taking a look into other projects that utilise design to communicate key messages around mental health, I was able to explore and develop ideas and understanding into how this had been done previously. One campaign on display at the Graphic Design exhibition, ‘*Can Graphic Design save your life?*’, was a series of posters commissioned by the Samaritans, a UK-based charity that supports people suffering from anxiety, depression and suicidal thoughts (Fig. 2).

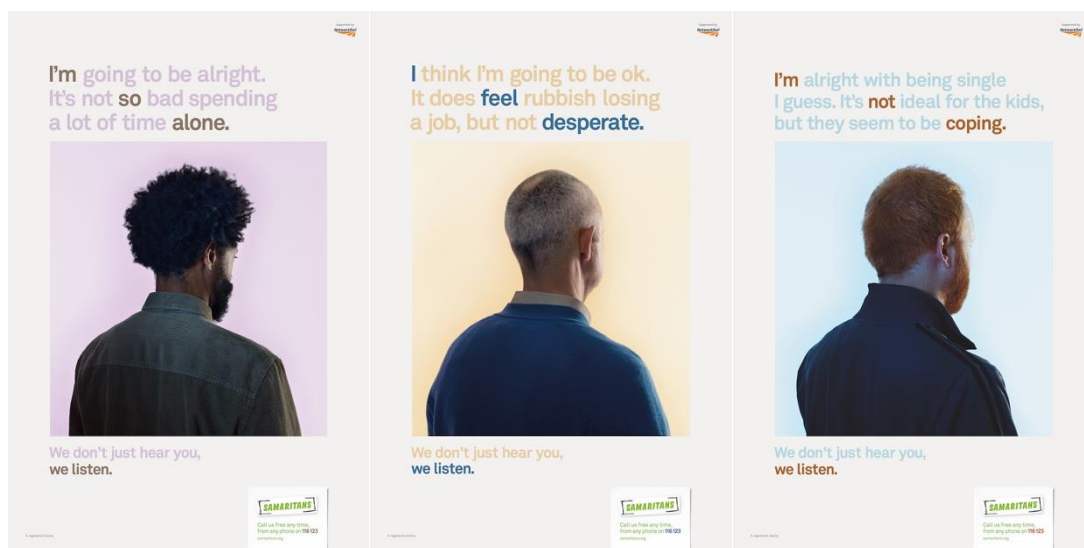


Fig. 2 (MullenLowe & Kander, 2017)

Designed and executed by MullenLowe¹, their ‘*We Listen*’ campaign looked to incorporate striking portrait images taken from behind, to allow anonymity in who the focus of the poster was on. They deliberately chose to reveal in plain sight two distinct messages through a single choice of typography and carefully crafted copy. This reveals hidden messages in a ‘look twice’ notion that centres around narratives indicating more likely truths as to what people may be feeling. The colour choice in these articles moves away from the cultural connotations of depression and anxiety usually depicted in dark and deep blacks and greys, as MullenLowe has opted for natural and pastel shades, which bring a feeling of calm and softness that ties into the hues seen within the stark photography. The imagery here has been taken specifically as to not show the identity of the persons involved.

¹ MullenLowe is a global integrated marketing communications agency based in London with offices around the world, specialising in creative advertising, design and media planning.

This gives the campaign another message and undertone of how we can't always see what people are feeling, as it is human nature to look for signs and signals as a way of communicating with each other and also helps to emphasise the service Samaritans offer; a safe place to talk whilst remaining anonymous.

Another designer who has looked to explore her feelings is Morag Myerscough. Known for her bold use of colour, paired with dynamic shapes and lines, in 2012 she started to use her Twitter account to post colours daily for the next few months, with no indication or reasoning as to why (Fig. 3a). She later disclosed that this was her way of recording what she called 'colour emotions'. In an article written by Sarah Dawood, Myerscough was quoted as saying "Using Twitter seemed the perfect way to do an experiment and discipline myself to keep it up every day" (2015).

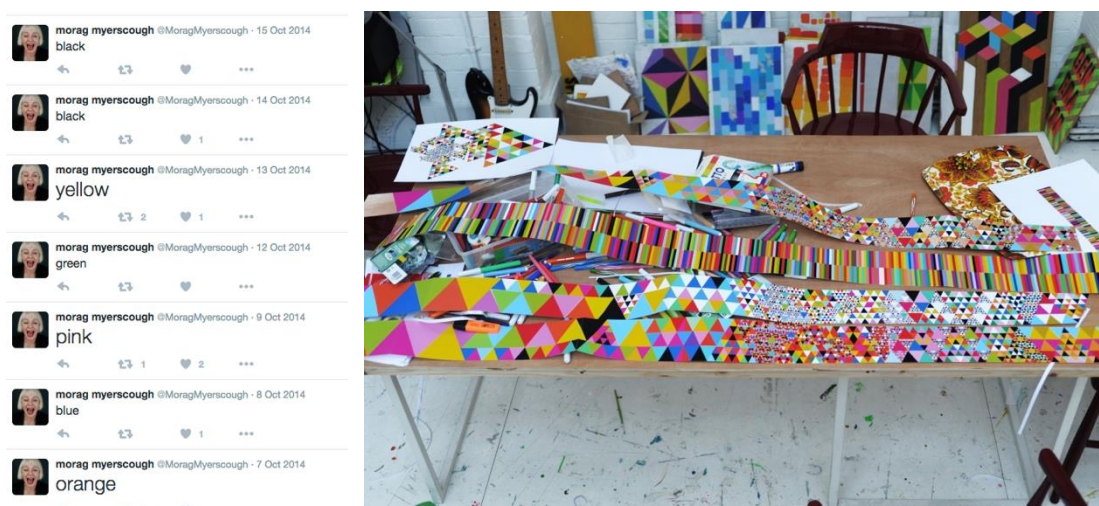


Fig. 3a, Fig.3b (Morag Myerscough, 2015)

What had appeared from the outside to be a set of random colours, would be transformed into a piece of work, showcasing her emotional journey on a day-by-day basis. The piece was to be installed in Linköping University Hospital in Sweden (Fig. 3b), where a corridor had been created to connect two of the hospital's buildings. "I wanted to do something about a journey... It is a very long walk from one end of the hospital to the other, which will be made by many patients and visitors. The piece is about making the journey more enjoyable." (2015).

The finished 200 metre graphic is built up of various sized triangles, which interlock with each other. In her own words, she says, “Stripes would have been boring” and I agree, as the way these triangles have been placed create irregularity. With changes in the shape's scale and pattern paired with her vibrancy and sporadic use of colour, she has been able to create something that comes across as being chaotic, as is life. You can follow the journey of her year through the *'colour emotions'*, and as an audience, look to relate your understanding of colour as a descriptor for emotion to connect with this piece in your own way. Myerscough goes on to explain that the pattern changes as you travel along the corridor and is based on how emotions change and flow throughout the year.

The projects listed above are indicative of the range of external creative outputs possible to convey emotions. The use of colour in both these examples, although very different in comparison, plays a key part in the tone and message of what is being communicated as an end result. The use of daily recordings in Myerscough's work enabled her to accumulate an abundance of colours to utilise, so the frequency of what I record and when, will also play a key role in how I proceed.

7. An autoethnographic approach

7.1 Recording data

My initial approach to this project led to investigating how and what I needed to record in relation to my own mental health. By defining categories of what my mood was at the time and relating a colour to that, I tasked myself to make a note every two hours for a period of seven days how I was feeling, and with what colour it was best represented.

I remember thinking *'how hard can this be?'*, noting down how I was feeling throughout the day. In reality, I wasn't always in the best place to record what was needed, or felt uncomfortable when at work noting I was feeling 'tired' or 'sad'. I dreaded anyone asking me what I was doing but I had to try and be honest with myself about what I was feeling at that time. This was also harder than I imagined. It wasn't just going to be the final design of data informing me of my mood, the whole recording process had become a therapy, taking a few moments to recognise, *'how am I feeling right now?'* I wondered how many people ask themselves that question daily, let alone every two hours. It was to be a real eye-opener into my low moments too. Sometimes the thought of simply writing down a word felt too much as if I didn't want to accept that this was who I was right now. Figure 4 shows my initial dataset from the field diary where I mapped out my week of emotions and colour and started to note correlations and patterns within the data.

	8:00 AM		10:00 AM		12:00 PM		2:00 PM		4:00 PM		6:00 PM		8:00 PM	
	Feeling	Colour	Feeling	Colour	Feeling	Colour	Feeling	Colour	Feeling	Colour	Feeling	Colour	Feeling	Colour
8/10/18	Heady grouchy	Orange grey	Busy Productive	Orange Blue	Busy Numb	Orange Grey	Focused Productive	Green Orange	Busy Focused	Purple Green	Rushed Tired	Red Brown	Tired Hungry	Dark Blue Dark Purple
9/10/18	Relaxed Ready	light Blue Peach	Productive Busy	Purple Orange	Annoyed Numb	Red Grey	embarrassed Frustrated	Dark red Mustard Yellow	Tired Heady	Dark blue Orange	Tired Hungry	Dark blue Dark purple	Relaxed Tired	Light blue Dark blue
10/10/18	Heady Tired	Orange Grey	Busy Productive	blue orange	Frustrated Busy	Red Orange	Rushed Productive	Red Yellow	Deflated Low	Dark grey Black	Tired Hungry	Dark blue Dark purple	Calm happy	ilac Pink
11/10/18	Okay Apperhensive	light blue Lime green	Tired fine	blue royal Grey	Fustrated busy	red orange	busy heady	orange brown	productive busy	yellow orange	tired deflated	grey ilac	tired calm	grey blue
12/10/18	ready productive	green yellow	productive good	lime pink	busy productive	orange yellow	hungry busy	pruple dark orange	lazy calm	dark green light blue	tired lazy	grey ilac	relaxed tired	white purple
13/10/18	low annoyed	brown red	rushed happy	dark pink yellow	hungry achey	lime green orange	happy excited	yellow pink	productive focused	orange green	hungry calm	dark purple light blue	calm anxious	light blue deep purple
14/10/18	tired calm	blue light blue	productive tired	pink ilac	hungry productive	yellow orange	happy calm	pink blue	excited nervous	lime green bright pink	hungry happy	yellow pink	tired nervous	blue grey

Fig. 4 collected data formatted into spreadsheets

It became apparent that the term *'tired'* was frequently recorded, appearing 15 times over the seven days which was closely followed by *'productive'* which featured 11 times. The really interesting part came when looking at how I had associated colour to the words, as where words had been repeated more than once, the colours I had associated with them weren't always the same. In fact, *'productive'* was given four different colours throughout the week, dependent on if I was in a positive working mood or a rushed and busy mood. Human relation and perception of colour could be one of the reasons behind this. Although there are not many accepted papers into the research of colour perception, there are two main arguments into how the relationship between colour and emotion is distinguished, the first being through psychology implying that it is universal (Morse & Volley, 2018). In Goethe's *'Theory of Colours'*, he was the first to link colour categories to an emotional response, where he stated colours seen to be in a 'plus' category (yellow, red-yellow and yellow-red) would induce positive feelings and 'minus' colours (blue, red-blue and blue-red) were seen to induce negative feelings (Goethe, 1840). This idea was further explored by Goldstein in 1942 where he scripted physiological reactions where apparent in emotional experience, and overt action could be produced by colour (Goldstein, 1942). The second theory is that our perception of colour is set culturally through society and people (Morse & Volley, 2018). In Elliot & Maier's Colour-in-Context theory, they state that some effects of colour are thought to be engrained by set combinations of colours and particular concepts, messages and experiences learnt over time, creating a strong colour association (Elliot & Maier, 2012). With my research being auto-ethnographical, it means that the colours recorded relate not just to how they are known by me within a cultural and social sense, but personally to how I feel the moods are best represented.

Another interesting observation came when looking at the emotions in pairs, and how many times certain words were seen together. The most common pair being *'busy'* and *'productive'*, closely followed by *'tired'* and *'hungry'*. Utilising these recordings, I explored how my skill in graphic design could be used to better communicate these findings in a way that would not only inform myself but also communicate these moods to a wider audience (Fig.5).



Fig. 5 visual development from initial dataset

7.2 Initial design response

Joseph Albers' research into colour and the human perception of it, suggests that by observing how people perceive and interact with colour can change how we envision them, as well as how we remember and relate to them. "Usually we think of an apple as being red. This is not the same red as that of a cherry or a tomato..." (Albers, 2006). One of Albers's ideas is that as an audience, we won't always have the same interpretation or representation of colour as the person standing next to us.

I wanted to explore how colour plays a key role in how emotions are identified and understood when it came to my data. The colours I choose might not necessarily be the same as someone else's view, so how does the end goal of this project speak to them in a way they can understand? One challenge I started to notice throughout this task was remembering to record my data every two hours. The amount I had set myself to record meant I needed an alarm to prompt me to record, which may have hindered my results, being an additional pressure to note my data so regularly throughout what could be a busy or stressful day.

7.3 Improved data recording

As a part of my development as a researcher, I was able to work alongside Kate McLean, a designer and creator of smellmaps, for UK charity Fifth Sense. Duncan Boak, who lost his sense of smell as the result of a head injury in 2005, established Fifth Sense in 2012 and since then it has grown rapidly, becoming the first charity in the UK supporting smell and taste disorder sufferers.

We were invited to join a discussion workshop with NHS patients that have lost or were losing their sense of smell and taste, to talk with patients to discuss how they are struggling to get the outcome they need from their health specialists. I observed people's frustrations and struggles, as well as their general feelings and emotions. By taking part in discussion groups, I was able to gain ideas and insights into how data can be collected through colour and the importance of conversations with volunteers to gain extra insights that enhance the data collected. The notes taken when talking to the volunteers gave the data recorded another perspective, and allowed me further understand what the groups were experiencing.

This was important when designing a way forward for collecting my own data, concluding that I should be recording more of my feelings and emotions rather than a few keywords and colours and giving more context as to what I was doing when recording my data.

7.3 Improved design response

During this time, my moods and feelings were becoming very low and changing all the time. I was advised a practice by my therapist to help me deal with this, in which I would note down all the things your mind cannot quite manage to think about clearly. In essence, get all the thoughts out of your head and onto a piece of paper. This journaling technique is used in dealing with **mental ill-health** and is said to "help you gain control of your emotions and improve your mental health" (University of Rochester Medical Center, 2020) as well as being a healthy way of expressing yourself to help reduce stress, manage anxiety and cope with depression. This process led to understanding the importance of adding a more human and story like element to my data. This ability to create a connection, similar to the

experience of talking with the participants during the Fifth Sense project, is what led to my next series of design experimentation.

In recording the initial dataset, I was intent on recording emotions and colours on a frequent basis to allow for a good amount of resource to learn from and explore with design. However, when I read that dataset back at a later date it was devoid of the emotional energy I had put in to it. The problem was one of balance. Described as dynamic, formal or radial, balance within design is the ability to compose visual elements equally across a design to create a feeling of harmony and stability (Poulin, 2018). I needed to determine how to compose and indicate the progress and development of emotion within the design.

From the research project with Fifth Sense, I concluded that further descriptions and explanations of thought and feeling should be noted down to allow for better understanding of mood, and to be read as a means of reflection for myself. To address the issues around remembering to record throughout the day and to enrich the data collected, I would make one note each day for a month. This would allow me to start to develop and explore through design and give me a good quantity and better-quality dataset.

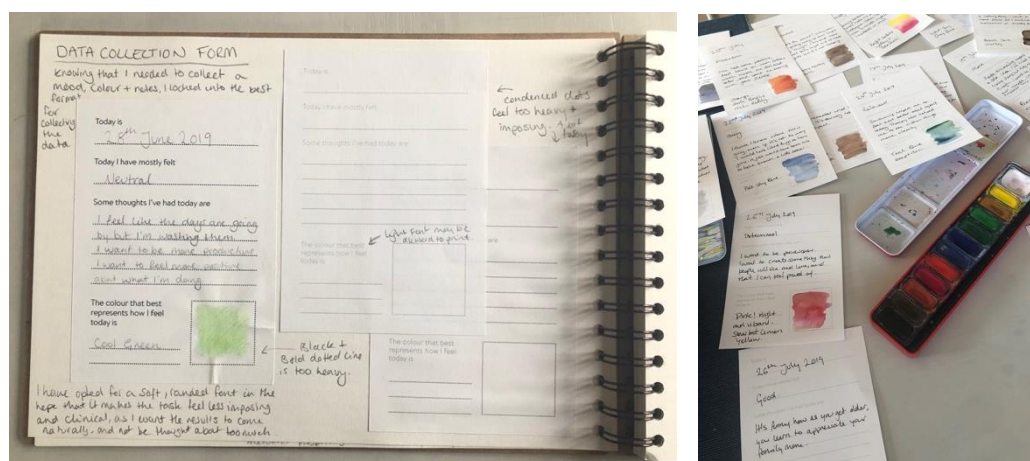


Fig. 6 sketchbook development of data collection format, and data collection in progress

Through designing and gaining feedback, I created a format for daily data entries that was more approachable to help simplify the process. With the subject around mental health, it was important that this design remained approachable so the language on the form became light-hearted and colloquial. The use of language in the medial setting has come under some scrutiny in a 2013 article, especially in relation to compassion. In an article published by

Qualitative Health Research, researchers found that current language “indicated both an institutional mentality and emotional distancing between practitioners and patients.” (Crawford, et al., 2013) They go on to recognise the importance of compassion when dealing with mental health and note how it can promote certain visions of care. By utilising a more compassionate tone in my design, it helps this document to make the task of recording feel less daunting and clinical, taking it away from feeling like other health documents which can be methodical and have that institutional mentality.

By minimising and simplifying the data, what I produced was of higher quality which gave me much more to work creatively with. The nature of this new dataset had the ability to stand as a piece of communication on its own, as being much more coherent in its format, it would allow an audience to clearly see my moods change with an understanding of why, through the comments I had written (Fig. 7).



Fig. 7 one month of data collection using the improved formatting

Designer and data visualiser, Nicholas Felton, focuses on translating quotidian data into meaningful objects and experiences (2019). ‘The Felton Annual Report’, in which Felton looks at selected personal datasets, satirises the concept of the company annual report by

making potentially trivial data (eating, drinking...) into a book of graphs and charts. The Quantified-Self movement originated in the US in 2007, gaining a following of those who share an interest in “self-knowledge through numbers” (QS, 2020) and are united in gaining data about themselves from health to daily performance, in order to gain further insights.

The tenth edition of *'The Feltron Annual Report'* published in 2015, explores self-tracking through widely available apps and devices. In 2015, the technology enabling Felton to keep a record of his daily activities had advanced to the point where what you're listening to can be merged with persistent location data (Felton, 2019). He explains that “This report attempts to merge all of this information in a format that reveals connections, provides context and suggests correlations” (Felton, 2019).

In previous editions of his Annual Report, he had recorded the data himself by making notes and setting reminders, but this year was different as it was up to the apps and devices he was wearing to record this data. But even though this seems to be the most extensive set of results he has published, Felton felt the data was missing a very important substance: context. Although one device was able to monitor his heart rate, it wasn't able to monitor what he was doing to affect that recording. Although these were accurate readings, the data wasn't correlating, which meant that interpreting this into visuals for an audience was much harder, having to add in sections of correlations to make sense of the abundance of data. Similarly, I decided it was important to give more of an account and explanation as to the feelings and colours being recorded, to add context and make the data more approachable.

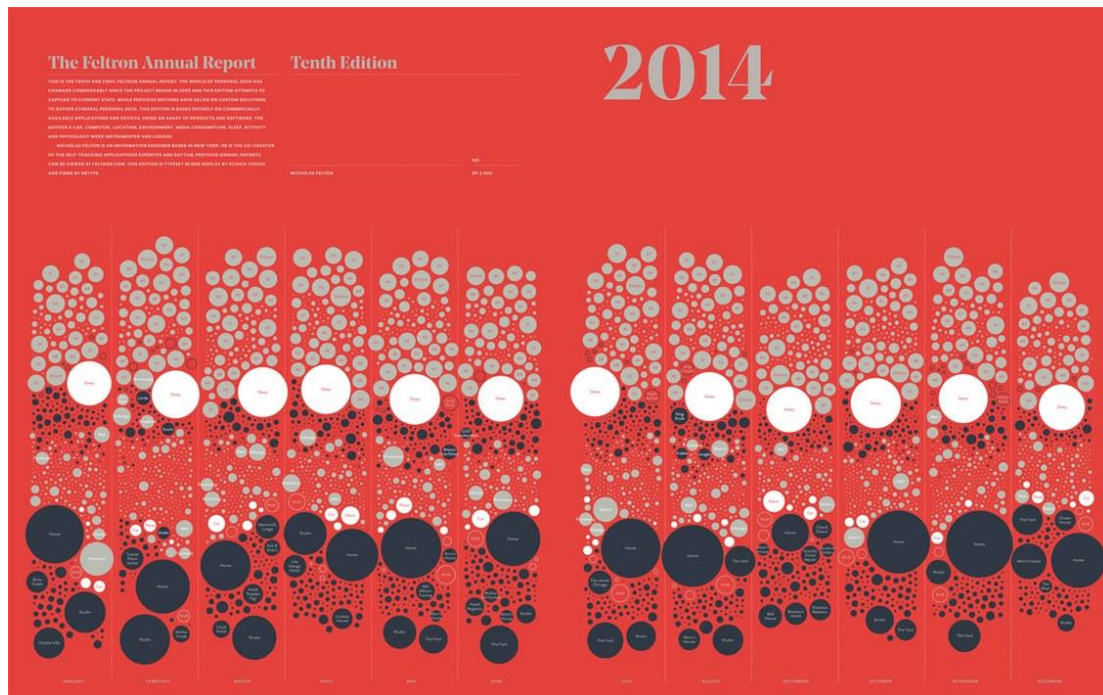


Fig. 9 (Felton, 2015)

The cover of this ‘*The Feltron Annual Report*’ (Fig. 9) caught my eye with its stark but bold colour palette, as well as the naturally soft, yet clean, feel that the use of circles brings to this design. He has thought about how the hierarchy of the circles needs to work in this space and looked at how the colour also contributes to the reader’s understanding of the data. The design here coincides with some of the elements attributed to the Gestalt principle of perception, a set of ideas that suggests the human brain can look to simplify and organise images or designs that consist of different elements by arranging the parts into a system that creates a whole, rather than just a series of separate entities (Chapman, 2020). The key element he executes here is the rule of common region which, under the Gestalt principles, is his use of proximity applied in the way Felton has grouped his data circles into columns as well as his use of colour to help separate his data and for the viewer to understand the flow of his data. It’s these elements that help to build key communication and understanding of data for the audience, and help to further explain to the reader through the design, how each of his days were and the context of this.

With these ideas in mind, I looked to explore this use of space and circles with visualising my data. I wanted the design to clearly show the development of mood over the seven days, a journey of feelings that developed as you read on. For this, size and placement was key, so I looked to utilise scale within the design. Scale is a visual principle defined as “a relative,

progressive classification of proportion or a degree of size, amount, importance, and rank in a composition.” (Poulin, 2018) In Fig. 10, the scaling of circles helps to create a visual hierarchy which can be used to draw attention through the composition of multiple visual elements, to the larger circles representing feelings that were more prominent.

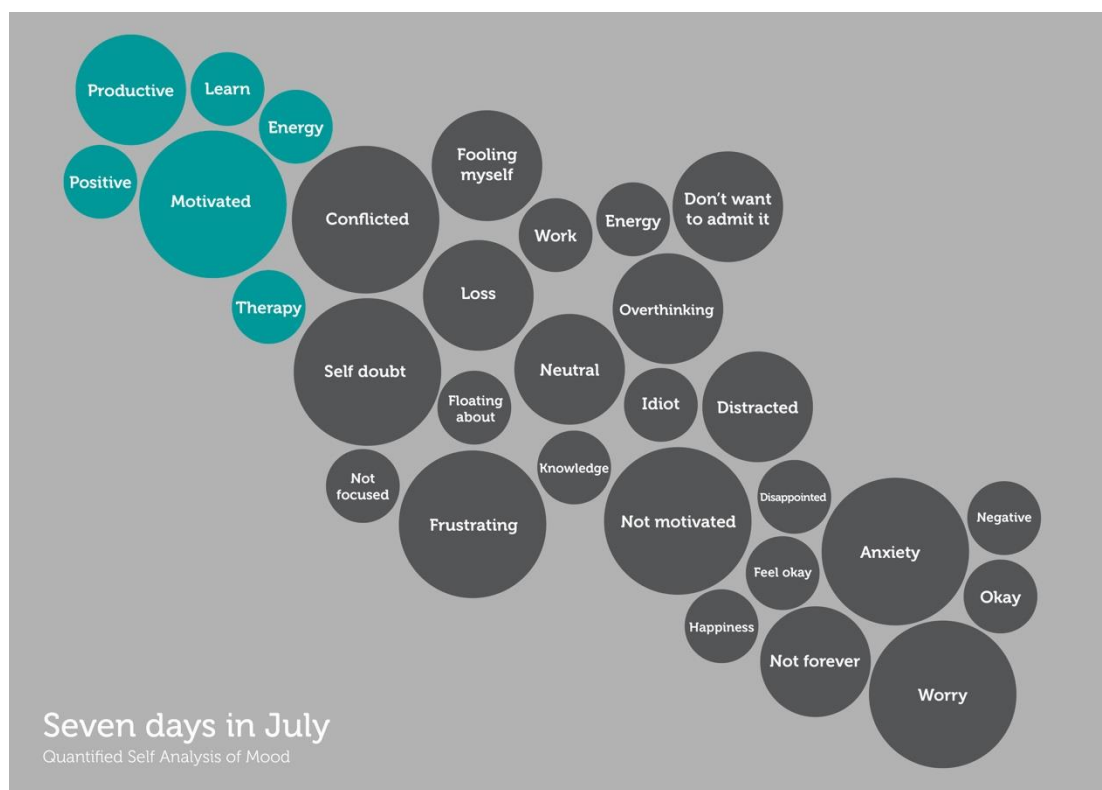


Fig. 10 design revision one

In Western culture, the viewer would naturally read this chart from right to left, meaning the order of the data would flow in chronological order and the cluster of words and circles would rise and fall in form, replicating the highs and lows of my emotions. Taking on board Felton’s use of limited colour palettes, I utilised just the three colours in my design, signifying the positive, and negative emotions with a dark grey and bright teal (Fig. 10). By doing this, the reader starts to group the colours in the same way you do with Felton’s work, through the law of similarity – the theory that the human eye will group visual elements in terms of their size, colour or shape, to perceive them in relationship to each other (Soegaard, 2020). In this case, you tend to see two groups of coloured circles, rather than the fact this is a continuous week of data.

To take this idea further and experiment with colour and the Gestalt principle of perception, I introduced the original colours that were recorded each day (Fig. 11). This allowed the audience to start to see clusters of circles and look to naturally group these colours through

the law of similarity, which better communicated the separate days. By reducing the colour value of the smaller circles, it exaggerated the larger elements on the page, creating a composition and balance to this piece. As in Ellen Lupton's *'Graphic Design the New Basics'*, she describes balance in design as a facilitator for form to activate elements of space (Lupton, 2015). The relationship of elements across a page help us to understand a visual design, and rhythm also plays a part in this. The lines and edges of the repetitive circles in this design are a catalyst for creating rhythm through this design, and creates a sense of movement on the page to draw the attention of the viewer to show the specific thoughts and feelings that were impacting me the most.

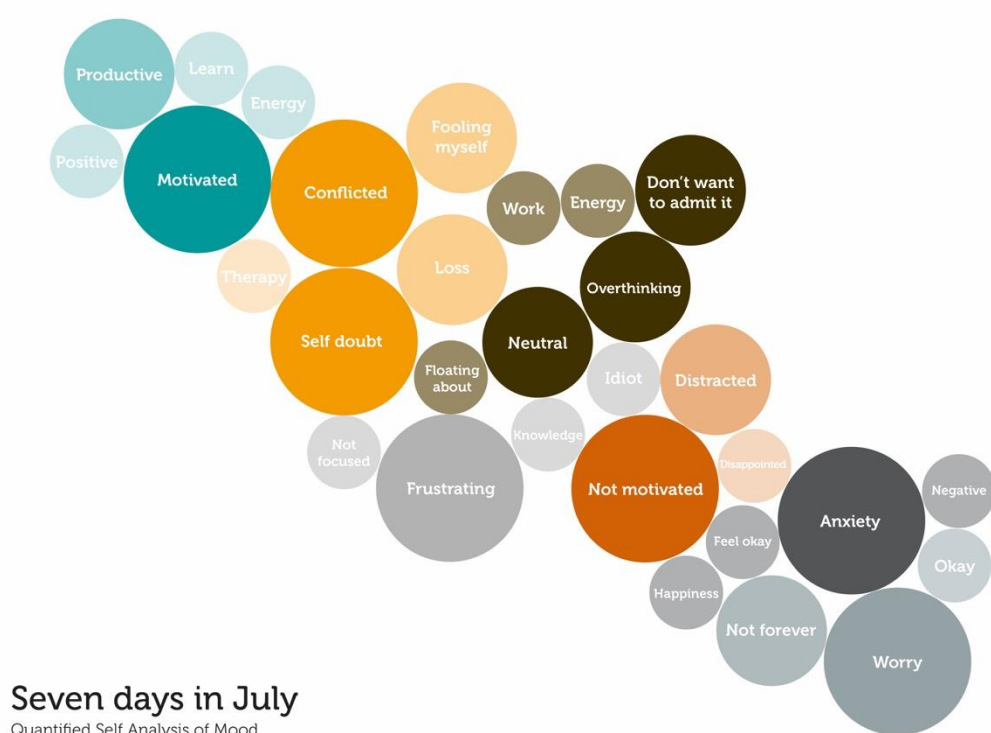


Fig. 11 design revision two

At this stage, the heavy use of colour and repetitive circles wasn't allowing the human and emotional element of the subject come through, and as a viewer I felt disconnected from the content itself. By going back and further investigating other data design, I wanted to see how I could achieve a more natural and emotional feel with my designs.

The work by Georgia Lupi, *'Bruises: The Data We Don't See'* (Fig.12) has a delicate nature, but Lupi takes it one step further by animating it and coupling it with a set of music, composed by Kaki. By doing this, Lupi adds another level of understanding and can

dramatise the data, allowing the audience to make an emotional connection with the piece and empathise with its story. With this piece, I was intrigued by the way Lupi was able to create a much more emotive response with what was clinical data. The fluid nature of the lines and colours she used helped to soften the nature of the data, and as a viewer, enabled you to connect with this piece much more emotively. “Through their experimental approach to data, music and design, Lupi and King made a cathartic sort of beauty out of a disturbing illness and its reverberations through a family” (Pentagram, 2020). Lupi has also looked to contextualise the data with the notes that had been made during the recording process, something that I had also been mindful of utilising. How you read this piece cemented for me that the context is equally as important as the data itself.



Fig. 12 'Bruises: The Data We Don't See' (Lupi, 2018)

Lupi's work contains a concept of flow and growth. I explored ideas around how my data could form and develop in the same way a plant might grow, constantly changing direction and evolving. With growth as a new concept, I explored ways to visualise the positive emotions associated with growing upwards and blooming as a plant would grow towards the light, and a negative day growing down and wilting (Fig.13). A coloured ring symbolising the 'flower' of this plant indicated my mood through the colour, and the dots around this symbolised the intensity of this mood. A clean and natural form allowed the recordings to be separated into data 'flowers'. By using watercolour as a medium, I was able to create a

balanced and natural form within the design, whilst still utilising the colours recorded as part of the data. Issues later came when I looked at how to format all of the data. I started by seeing how a section of 7 days might appear, but soon it became hard to find a way to format these data 'flowers' in a way that felt natural and navigated the viewer through the graph. This ended up feeling separated, and lost the delicate feeling intended with the nature of the data. The data 'flowers' concept and circular format that kept appearing in my initial sketches still felt right in that it had a wholesome and natural feeling about it, but work was needed on how the data could be formatted.

After developing the designs, I found that I could see how my mood had been fluctuating and potentially start to understand my mood and emotions regarding my mental health. However, I felt this data visualisation only benefitted my personal mental wellbeing. It was being understood by me because it was my data and I could better recognise my recordings because I had experienced them. I needed to think more about how this could work for my audience. If it's not going to be my data informing them of mental health, could it be the audience's own?

8. A new focus

8.1 Reasoning

From exploring designing with my data, I was able to inform and communicate the state of my mental health to myself, but I wanted to be able to engage another audience. By going back to recording my data, I wanted to see how the auto-ethnographical research process could be utilised to enable someone to follow a similar process to inform them of their mental health.

To further engage with how design has been supporting mental health, I attended the Creative Conscience symposium event held at the Design Museum, London in 2020. Guest speakers within the creative industry discussed the topic of mental health through examples of their work and education. “Creative Change Makers explores the impact of design and creativity for mental health and wellbeing...” (Creative Conscience, 2019). Led by Creative Director and Founder of Creative Conscience, Chrissy Levett, it outlined the importance of looking to create and generate new ideas and solutions to help tackle the impact that **mental ill-health** is having on our society today. She further spoke about the importance of us looking after our mental wellbeing, and how as creatives, we can help ourselves through the work we do.

Throughout the day, guest speakers including Ben Akers, an ex-industry creative who founded ‘Talk Club’ after the suicide of his best friend; encouraging men to open up about their mental health, and some of the award-winning students who look to answer some of today’s issues with creative solutions that discuss issues around the design industry and its connection and responsibility towards mental health. What was great about all the entries was that they looked to help others and engage a new audience to think about what is going on around them, which influenced how I wanted the direction of my project to go.

By reviewing the data collection from the past few months, I realised that although I could look back and reflect on what I had been feeling, it wasn’t necessarily helping to indicate an issue with my mental health in real-time. The process of collecting data and then visualising it to gain a result was long, and didn’t always produce a desired result. I wanted to create something that was not only a way of recording your mental health data and being able to

reflect upon it, but to also recognise and indicate straight away what could potentially become an issue later on.

8.2 Research and Experimentation

With the change in mental health culture, I investigated how people were looking to engage with and support their mental wellbeing. According to the NHS website, there are five ways to good wellbeing; talking, mindfulness, exercise, learning and giving. These five suggestions were published by the charity Mind, and are backed up by the NHS which states that trying these things could help you feel more positive and able to get the most out of life (NHS, 2019). They suggest that connecting and talking with people will “help you to build a sense of belonging and self-worth” and also allows you to share your experiences and look to provide emotional support. They also suggest that being active can also improve your mental wellbeing by raising your self-esteem, and by setting yourself goals or challenges, chemical changes in your brain occur which can help to positively change your mood, when you achieve these. The learning part also combines a lot of these elements, again helping to raise self-esteem, and when experienced in a group activity, can help connect with other people as well. The NHS page also mentions that research has suggested that acts of giving and kindness can help improve your mental wellbeing, by creating positive feelings and that finally mindfulness, or “paying more attention to the present moment”, including your thoughts and feelings, your body and the world around you can also contribute to good mental wellbeing (NHS, 2019). The communication of this was explored by illustrator Jessica Jenkins, in a submission for the Creative Conscience awards. Through her animated film, ‘5 ways to be mentally fit’ she communicates these five areas of good mental wellbeing targeting men, to help them open up and think about their mental health and encourage people to be empathetic towards those suffering from **mental ill-health** (Jenkins & Conlon, 2019).

Along with these five key areas, studies have shown that micro-actions have been shown to allow people to see positive changes in their lives, including feeling less stressed and having a greater sense of being organised (Kim, 2014). Described in *‘The Book of You’* as a small, simple and achievable task in a person’s everyday life, simple tasks are used to help build towards something bigger, making a change in the reader’s day-to-day life (YOU-app, 2015).

After the success of the 'YOU app,' its creators looked to tap into the self-help book trend by publishing 'The Book of You', a guided practice publication formulated micro-actions to guide the user in helping to maintain their wellbeing. The micro-actions in the book are broken down into four themed areas; Food, Mind, Move and Love, and are curated by a team with expertise in each area to decide what constitutes as a micro-action that would benefit the reader.

Guided and self-help books like 'The Book of You' have in recent times seen a huge increase in popularity, with unit sales in the U.S increasing 11% over the last 6 years (Anderson, 2020). After experiencing her own mental ill-health, best-selling author Fearne Cotton sought to help break the taboo surrounding mental health by opening up about her own experiences. Her book, 'Happy', also includes support and practical exercises that the reader can do to share in Cotton's techniques to help them improve their mental health (Cotton, 2017), with all the information provided in the book backed up by mental health charity, Mind. Her way of thinking about our mood is that she had also looked to associate colour to feelings through a "reflection rainbow". As you read through the book and work on the tasks Cotton recommends, she will occasionally refer the reader back to this colour chart, which allows them to attribute their feelings to a colour stage on the rainbow, to use as a reflection tool. This works in a similar way to the process I have looked to use colour as a way of recording, and works on the premise of 'Theory of Colour', denoting that black and dark colours are 'negative' and the bright yellow colours are 'positive' and happy due to previous social and culture references (Morse & Volley, 2018).

Taking into account the previous autoethnographical process, and the topics stated here around colour exploration, micro-actions and key themes to improve mental wellbeing, I formed a concept around placing all these elements into one. I looked to design a way in which a user could record and reflect on their mental health, but also learn about ways they could improve their mental wellbeing, based on data they recorded.

8.3 Identifying a new direction and audience

With the elements of this new data in mind, I thought about ways in which participants would be able to record their own mental health data, and not only be able to review this to

see and understand their state of mental wellbeing, but also gain insights and support on how to improve this. My initial thoughts were around designing a mobile application that allowed the user to record, track and gain information and support to improve their mental health and wellbeing. It would be used to record their data and format this into a reflective journal, analysed by an algorithm to then suggest ways in which the user could look to improve their wellbeing. It would be aimed at a young millennial audience aged 18-35, who are becoming more aware of the world's issues and see the need to improve and maintain a healthy mind and body. This app would also be used by those who wish to keep a tab on their mental health, by recording their health data in line with current trends of human data, in a similar way to how **Felton** created his latest annual report.

Currently, there are a few Apps on the market that look to help users record their mental health or suggest techniques to improve **mental ill-health**. In the UK, approximately 78% of people own a mobile phone, with people checking their phone on average every 12 minutes of the waking day (Ofcom, 2018), indicating that mobile phones have unique access to our everyday behaviour. However, the legitimacy of some mental health apps has been questioned. An article published in 2019 cited there had been over 10,000 mental health apps available to users commercially but, with many of them not having been evaluated for sustainability and quality (Torous, et al., 2019). At a minimum they argue the urgent need to evaluate standards including data safety and privacy, the app's effectiveness, user experience and data integration. The effectiveness of current mental health apps had also been explored in a 2016 study, where other recommendations were made including capitalising on inbuilt tools and technology and the ability to contribute data to allow monitoring of emotional health over extended periods of time (Rickard, et al., 2016).

To stand out and meet the needs of my audience, I wanted to create an option that could be tailored to the user's needs when they are recording data, and allow them to contribute their own data and explore their mood through colour. With many of the other Apps available, suggestions of support aren't always given based on more than one key element. So with my own design, I would look to implement more of the five key areas of wellbeing (talking, mindfulness, exercise, learning and giving), as suggested by the NHS and Mind charity. Other elements not seen in the current available apps included the use of built-in location services as a way of offering support, which could work in combination with

suggestions around the five key areas to give localised support. Based on this market research, I started to think about how to form all of these elements into a working design, thinking more about its functionality and determining how this application would work.

- As a reminder to record each day, the user is prompted to record how they are feeling today.
- They would be asked to select a word that best describes their current mood, a colour they would attribute to that feeling, key themes that may have affected their mood that day, and also make a few notes to recollect what sort of day they had experienced.
- Based on the data recorded by the user, the application's algorithm would then suggest ways to improve their current mental state based around the four key themes; Talking, Exercise, Mindfulness, and Learning, informed by the NHS's suggestions for good mental wellbeing.
- Using location services, the app can also look at what support, charities, events and communities are near-by to help support the user to fulfil the four key themes. For example, if the user suggested that exercise is something they need, the location service can find them a local class to support that need.
- The application would also feature a live in-app chat message service that connects the user with either one of the app's chat volunteers or with a community of other users looking to discuss, help and support each other.

8.4 Process development and testing

To engage my audience, I needed to develop a brand for this project that would not only be appropriate for the subject of mental health, but would also appeal to a young millennial audience aged from 18 to 35. I started by going through a naming process and looking at keywords and phrases that applied to the nature of the application.

The name 'Animo' was chosen, which derives from the Latin word 'Animus', which means 'mind', and encompasses notions of feelings and the soul. It also translates as encouragement, courage, zest and soul. I then thought about a potential brand **strapline**,

choosing 'Good for you' as it works in two contexts; good for you personally as something that benefits you; and as a supportive message of encouragement when one looks to do something for themselves.

When creating a brand, the design is equally as important as the name and messaging, therefore research and development was needed to decide on the logo and other brand elements to continue the light-hearted and friendly tone as started on the initial data collection documents.

The friendliness and non-clinical appearance of this design was key to connecting with my audience in an open and approachable way. Through initial ideas and concept creation, I created a brand logo that looked to include a shape that mimicked a brain, symbolising the 'mind' element of the project. Lowercase letters denote a soft and subtle tone, and were the most suitable to reflect the friendly and approachable nature of the brand, when paired with a softly rounded font that complements the line aspect of the final logo. The final design incorporated this shape loosely based on the brain, linking to the subject matter of mental health (Fig. 13). By layering an outlined shape and a fill colour shape, it helped to give the design visual depth but, also hints at the idea of unveiling what is underneath, as with exploring what is in your mind, and behind the person you see every day. The choice to split the brand name came from the development stage, as within this format, the text became too strong and bold in comparison to the form. By splitting the brand name and having the two layers of text, it also creates the feeling of fluidness and calm, and links back to the idea of piecing together and understanding what it is going on in your head, and the feelings you may have.



Fig. 13 Final design – Animo logo

Using a bold yet calm blue came from my research and developed from looking at the Pantone colour of the year 2020 ‘Classic Blue’ in order to attract my target audience. The use of blue in this brand works as in colour psychology, it looks to represent calmness and confidence. This is then paired with a soft pale peach colour to represent care, warmth and hope that brings a friendliness and calm to the overall brand look and feel. A set of colours has been formed as a secondary colour palette that complements the two main brand colours and also represents each of the four key theme areas. This also helps with usability of the app itself, as visually the user can relate certain information to that of colour for each theme (Fig. 14).

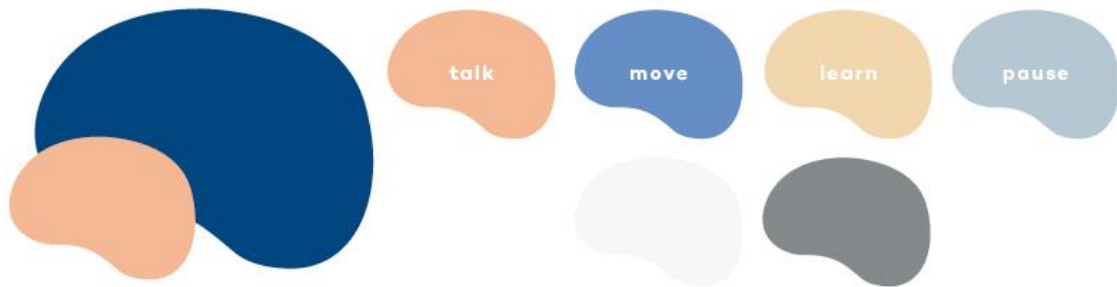


Fig. 14 Animo brand colours

Feeling confident in the project brand, I explored how the idea of a mobile app was going to function and be able to achieve the aims of allowing the user to review and understand their recordings and also find ways to help support their mental wellbeing. In a study published in 2020, researchers gained insights into how current mental health apps could be improved to benefit the end user. Usability was one of the most important features called out, noting that simplicity and ease of use as well as being structured and visually appealing was a key to the apps success (Alqahtani & Orji, 2020). Another important feature noted was the variety of tracking functionalities when recording data, as well as having different reminders throughout the day relevant to the app and its offerings, especially when they can be tailored to the user’s daily routine.

Armed with this information, I wanted to get an idea of how a user may interact with my app concept. I designed an analogue version of the mobile app process in which the user would input their data recordings in a very similar way as I did in my initial research stages.

The user would be prompted to select a word that best relates to how they are feeling at that time. These preselected words have been curated from my research into my data collection and allow the algorithm to determine if the user has selected a positive, negative or neutral word. The user is then asked to select a colour that they feel best represents their mood. This extra data helps the user to think about this feeling in more depth and asks them to calculate the manner of that mood into a colour. From this, the user would select what they feel has impacted them most during the day and influenced their current mood. These attributes were accumulated from my data research and analysing my notes to see what was impacting on my mood and commonly trending in my data. Lastly, they are given the option to note down some thoughts on the day, in the same way I did in my data recordings, as this then creates a reflective journal that the user can look back at and learn from. This allows the **user** to easily personalise their data and have a variety of ways tracking their mental health.

For the analogue prototype to then be able to create a personalised response, an algorithm was formed to respond to the daily recordings. In the same 2020 study, accuracy with information and results was positively received by users, and furthermore preferred when based on scientific evidence (Alqahtani & Orji, 2020). For my prototype to give accurate results to the participants, I limited the words the user could input for 'mood' and 'attributes', meaning I could better respond to them based on their individual input. By grouping the moods into positive, negative or neutral words I could then create a code matched with the chosen 'attribute', to create a set of accurate results that incorporated the four key themes for good mental wellbeing as per the NHS information (NHS, 2019).

Three participants were sent a pack including an introductory video, explanatory PDF and the mental well-being response forms for them to complete each day, which they returned to me daily. In return, I sent them a results PDF based on their data, together with suggestions on how to improve their mental wellbeing, using my algorithm to generate the results.

8.4 Outcome

After completing a week of data recording, participants took part in an exit interview in which they were questioned on elements of this process. When looking specifically at the

sections they were asked to complete, the participants felt enough choice in regard to their feelings when recording, although a couple stated an option to write their own would have been beneficial. To do this, the algorithm would need to be modified to place user-identified words into broader categories. One participant found that having to reflect and just pick one word to describe the day was "...originally hard to choose, (I) wanted to choose more than one but in the end, it **made me really** think about how I felt and was a positive thing." From a usability perspective, some participants also mentioned that the order of the moods could have been categorised by positive, negative and neutral so they could find how they were feeling more easily.

When it came to the attributes, some participants were happy that the categories listed covered what they needed, and liked the broadness of the categories. However, there were a couple of comments saying this section might need to be expanded to include events that may have happened that day, or to give the user the opportunity to write their own option as they found themselves "...selecting the one closest to what my day had been like rather than the actual thing." I think this is one area where more development would be needed to enable the user to input accurate recordings. Algorithm design often requires continuing investigation and changes to be completely accurate (Mittelstadt, et al., 2016). Discussions are also being had around generating algorithms for human user experience, with issues such as '*algorithmic anxiety*' (Jhaver, et al., 2018) where users deal with uncertainty around data they are entering and if an algorithm will perceive it correctly as well as the bigger debate regarding Artificial Intelligence (AI) acting as part of human decision making. In a TED Talk by Raphael Arar, he notes how AI can currently understand the most basic of human emotions but when it comes to more complex feelings that maybe as humans we find hard to communicate, it's hard to compute that into mathematics AI can interpret and respond to (Arar, 2017). This makes limiting the choices that a user can input better regarding the results as it gives the algorithm more direction, but can be limiting from the user's perspective when wanting to be more specific in their data input.

The colour recording was an interesting talking point in the interviews. As cited on page 20, Albers suggested that we all perceive colours differently (Albers, 2006), so it was interesting to hear the concerns of one participant who said when they were trying to find a colour that represented their mood, "...I think it depends on your perception of colour. I saw grey as a

calming colour, not a negative one so someone else might see it as a negative recording rather than a calm one.” Interestingly the same participant also mentioned that they felt they may have been trying to match the colour to the word they had chosen for the mood sections and that by reversing the order this was done in, may have made a difference. Other participants enjoyed this element of recording, finding the idea of selecting a colour ‘fun’ and interesting to think about when relating to their mood.

“...being able to add comments and get down what was going on in my head. Reviewing at the end of the day helped me realise a pattern that was happening with my thoughts.” The element of being able to express yourself through journaling to reduce stress and review also had a positive response. One participant did mention concerns about being too open and honest but saw that might have been in light of the process and knowing they were being read by me, as author of this project. Privacy of the data would need to be a consideration when taking the project further, to not only be compliant with GDPR regulations, but also for the security and trust of the user. Ethically, the nature of what is being recorded is personal and private, so the app must be able to respect the rights and privacy of the user and their data. The NHS has a specific system to be able to store health and care data which is heavily encrypted and managed by their NHS Digital’s Data Security Centre, along with world-leading cyber security (NHS England, 2020). As well as data protection, the way the app stored and read data would also need to be addressed to make sure it was secure and not breaching any confidentiality rules.

A key part of the prototyping process was the results sent back to the participants after they had completed their response sheets (Fig. 15). This document shows where they could both reflect on their past data and gain insight into ways they could improve their mental wellbeing (NHS, 2019). Most participants felt that the results document enabled them to better understand their mental health, helping them to “see a pattern” in their data, and they also enjoyed having a personalised document returned to them. Some took up a couple of the themed suggestions for good mental wellbeing, with one participant saying, “being reminded to go outside, to get fresh air... it did help, gave me a chance to reset” and all felt would benefit their mental wellbeing. There were a couple of comments around some of the results suggestions becoming repetitive which meant that the results lost a sense of their personal touch or effectiveness.


participant response sheet

name: John Smith

date: 30/03/2020

location: Canterbury

1. What word best describes your mood today?
Happy

2. What colour best fits your mood today?


3. What has mostly impacted on your day today?
Family

4. Is there anything else you'd like to share?
It was a nice day being able to see all my family and see how well everyone is doing. It makes me happy to know they are safe and well.

Fig. 15 Participant response sheet and results form example.

Hi John,
here's your daily summary

date: 30/03/2020

today i'm mostly feeling...
happy

this has been mostly down to... **family**.

i thought i'd share...

It was a nice day being able to see all my family and see how well everyone is doing. It makes me happy to know they are safe and well.

your wellbeing recommendations

talk **move** **learn** **pause**

Take the time today to talk to either a friend or family member about what made you feel this way today. Releasing any negative thoughts will help you to understand them better and someone else can help give you perspective on what you've been thinking about.

Do a few small tasks round the house to get you up and about. We all have those little mental to-do lists whether it be sorting a drawer or cleaning the fridge. Get those little jobs done and out of the way.

Reflect and renew yourself! Take some time out today to learn about yourself by writing a small eulogy all about you. Reflect on what makes you who you are and think about how this person might look at change in the future.

Get yourself a going to sleep alarm. Making sure you get plenty of rest is a key element to a health mind and many people struggle to fit in the hours as by knowing what time you need to be up, set an alarm 8 hours before then to remind you it's time to get some rest.

support in your area

If you're looking for a supportive community, professional business coaching and a group of inspiring collaborators, you're in the right place. Creators Club, founded in 2017, is a vibrant community of creatives, freelancers, small business owners and helping entrepreneurs.

Check out their website and Instagram to join online meetings and workshop to help improve your skills or gain industry insight and support from professionals.

Find out more here!

Location: Online - UK

don't forget to send your response sheet to us tomorrow!

As this was a prototype, I only created a limited amount of responses for this task which meant on some occasions, the algorithm would create the same suggestion results. To increase the variation of results for the participants, I manually edited some of the suggestions to reduce repeating content. For the next stages of development, the content created for the algorithm would need to be substantial enough to product different results each time, even when the code produced is the same. This would then need to be continually maintained and updated to continue to produce relevant suggestions for the user to sustain the personal and tailored approach.

Overall, the participants were seen to find the process of recording the data daily beneficial, saying that they felt the process enabled them to understand how they were feeling and

their mental health, with one participant saying, “I think I would use it more to understand my mental health. It can be used to improve but I think it’s more to understand and reflect on your own feelings.” Although this analogue task was laborious at times when jumping between documents, most participants approved of the process saying it was simple and easy to complete, and that the hardest element was remembering to do it each day and found they had to set a reminder notification to encourage them to complete the sheets each day. All participants said they would continue to record their data if an app was to be developed to gain insight and improve their mental wellbeing, and felt that an additional benefit would be the ability to enter a live chat or talk to a professional about their recordings and how they are feeling to gain extra support.

9. Conclusion

Through developing the idea of recording personal data and finding ways of reviewing and understanding its content, I have been able to test a concept with participants to further show that graphic design can enable the understanding of their thoughts and feelings, and create a platform from which a user can help improve their own mental wellbeing. Although this analogue approach is a start, the development of a mobile app could be explored further as there is clear evidence from this research that it is something that could benefit those looking to help understand and manage their mental health.

The algorithm requires further development in terms of creating better tailored results and allowing more flexibility for the user when recording their data, before looking into the development of the app itself. I would like to further explore not only how the selection of emotions and attributes could be developed to better allow the user to input accurate data, but also the order in which the data is recorded, to see if this changes the way the user inputs data when looking at mood and colour, to see whether different results arise. Another key element that would need to be explored is around data protection and how mobile apps use and store a user's data, especially with the recording of mental health being a personal and potentially sensitive subject.

At the start of this project, my aim was to better understand my own mental health. The tasks and research that I have challenged myself to do and explore during this time have enabled me to do so, and perhaps now allow me to recognise and understand my emotions even better. The process of using an autoethnographic approach has been not only been pivotal to my research but, has equally got me through some low times and provided me with insights about my own actions, emotions and relationships with other people. Without this exploratory process into understanding my mental health, I would not have been able to inform my research, design process and final concept to create a better and more emotionally connected project, which is the key to making this work for the end user.

10. Bibliography

Adams, T. E., Holman Jones, S. & Ellis, C., 2014. *Autoethnography: Understanding qualitative research*. New York: Oxford University Press.

Albers, J., 2006. *Interaction of Color*. New Haven(Connecticut): Yale University Press.

Alqahtani, F. & Orji, R., 2020. Insights from user reviews to improve mental health apps. *Health Informatics Journal - Vol 26 Issue 3*, pp. 2042-2066.

Anderson, P., 2020. *NPD: 'A Decade of Personal Exploration' Ahead in US Self-Help Books*. [Online]

Available at: <https://publishingperspectives.com/2020/01/npd-sees-decade-of-personal-exploration-opening-usa-self-help-books/>

Arar, R., 2017. *How we can teach computers to make sense of our emotions*. [Online]

Available at:

https://www.ted.com/talks/raphael_arar_how_we_can_teach_computers_to_make_sense_of_our_emotions/details

Barbosa, E. R. d. Q., DeMeulder, B. & Gerrits, Y., 2014. Design Studio as a Process of Inquiry: The case of Studio Sao Paulo.. *Architecture & Education Journal*, p. 241–254.

Chapman, C., 2020. *Exploring the Gestalt Principles of Design*. [Online]

Available at: <https://www.toptal.com/designers/ui/gestalt-principles-of-design>

Cotton, F., 2017. *Happy*. London: Orion Spring.

Crawford, P. et al., 2013. The Language of Compassion in Acute Mental Health Care.

Qualitative Health Research, Vol.23, Issue 66, pp. 719-727.

Creative Conscience, 2019. *CREATIVITY FOR MENTAL HEALTH*. [Online]

Available at: <https://www.creative-conscience.org.uk/creative-change-makers-day-1/>

Dawood, S., 2015. *Morag Myerscough reveals the meaning behind her mysterious Twitter feed*. [Online]

Available at: <https://www.designweek.co.uk/issues/16-22-november-2015/morag-myerscough-reveals-the-meaning-behind-her-mysterious-twitter-feed/>

Elliot, A. J. & Maier, M. A., 2012. Chapter two - Color-in-Context Theory. *Advances in Experimental Social Psychology - Volume 45*, pp. 61-125.

Ellis, C., 2004. *The Ethnographic I: A Methodological Novel about Autoethnography*. Walnut Creek(CA): AlraMira Press.

Farr, C., 2015. *The Good, the Bad, and the Ugly About Design in Health Care*. [Online]

Available at: <https://ww2.kqed.org/futureofyou/2015/08/24/why-the-health-sector-still->

[views-design-as-an-afterthought-qa/](#)

[Accessed 11 February 2018].

Felton, N., 2019. *2014 Annual Report*. [Online]

Available at: <http://feltron.com/FAR14.html>

Frank, A. W., 2000. The standpoint of storyteller.. *Qualitative Health Research*, pp. 354-365.

Frayling, C., 1993. Research in Art and Design. *Royal College of Art Research Papers 1, 1*, pp. 1-5.

Goethe, J. W. v., 1840. *Goethe's Theory of Colours*. London: John Murry, London.

Goldstein, M. K., 1942. Some experimental observations concerning the influence of colors on the function of the organism. *Occupational Therapy & Rehabilitation*, June, pp. 147-151.

Guab, J., Strauss, C., Bond, R. & Cavanagh, K., 2015. *How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies*. [Online]

Available at: <https://www.sciencedirect.com/science/article/pii/S0272735815000197>

[Accessed 11 February 2018].

Hughes, C., 2017. *Behind Topman's tear-infused water campaign stunt*. [Online]

Available at: <https://www.campaignlive.co.uk/article/behind-topmans-tear-infused-water-campaign-stunt/1447268>

[Accessed 12 February 2018].

Jenkins, J. & Conlon, J., 2019. *An interview with Jess Jenkins Interviews*. [Online]

Available at: <https://www.creative-conscience.org.uk/an-interview-with-jess-jenkins/>

Jhaver, S., Karpfen, Y. & Antin, J., 2018. *Algorithmic Anxiety and Coping Strategies of Airbnb Hosts*. New York, AMC.

Kim, S. H., 2014. Evidence-Based (Simple but Effective) Advice for College Students: Microaction and Macrochange. *The Mentor: An Academic Advising Journal*, Vol 16.

Lister, J., 2008. *The NHS After 60: For Patients or Profits?*. London: s.n.

Lupi, G., 2018. *Bruises : The Data We Don't See*. [Online]

Available at: <https://medium.com/@giorgialupi/bruises-the-data-we-dont-see-1fdec00d0036>

[Accessed 10 March 2019].

Lupton, E., 2015. *Graphic Design The New Basics*. Hudson, NY: Princeton Architectural Press.

May, T., 2017. *House of Commons Wednesday 11 January 2017*. [Online]

Available at: <http://parliamentlive.tv/Event/Index/a874ad10-8dee-44a9-bd87->

[7d6923651e7e?in=12:10:38](#)

[Accessed 11 February 2018].

Mills, C. W., 2000. *The Sociological Imagination. Fortieth Anniversary Edition.*. New York(New york): Oxford University Press.

Milne, C., 2017. *NHS spending on mental health.* [Online]

Available at: <https://fullfact.org/health/nhs-spending-mental-health/>

[Accessed 11 February 2018].

Mind , 2018. *What we do.* [Online]

Available at: <https://www.mind.org.uk/about-us/what-we-do/>

[Accessed 11 February 2018].

Mittelstadt, B. D. et al., 2016. The ethics of algorithms: Mapping the debate. *Big Data & Society*, pp. 1-12.

Morse, N. & Volley, J., 2018. *We can use colour to communicate how we feel – here's how.* [Online]

Available at: <https://theconversation.com/we-can-use-colour-to-communicate-how-we-feel-heres-how-90157>

MQ Mental Health, 2019. *Swear your support.* [Online]

Available at: <https://www.mqmentalhealth.org/we-swear/whos-swearing/swear-your-support>

NHS England, 2020. *Health and care data.* [Online]

Available at:

<https://www.england.nhs.uk/digitaltechnology/connecteddigitalsystems/health-and-care-data/>

NHS, 2019. *5 steps to mental wellbeing.* [Online]

Available at: <https://www.nhs.uk/conditions/stress-anxiety-depression/improve-mental-wellbeing/>

Ofcom, 2018. *A decade of digital dependency.* [Online]

Available at: <https://www.ofcom.org.uk/about-ofcom/latest/features-and-news/decade-of-digital-dependency>

Pentagram, 2020. *Bruises: The Data We Don't See.* [Online]

Available at: <https://www.pentagram.com/work/bruises-the-data-we-dont-see/story>

Poulin, R., 2018. *The Language of Graphic Design : An Illustrated Handbook for Understanding Fundamental Design Principles.* Massachusetts: Rockport Publishers.

- QS, Q. S., 2020. *What is Quantified Self*. [Online]
Available at: <https://quantifiedself.com/>
- Rhodes, M., 2015. *This Guy Obsessively Recorded His Private Data for 10 Years Related Galleries*. [Online]
Available at: <https://www.wired.com/2015/10/nicholas-felton-obsessively-recorded-his-private-data-for-10-years/>
- Rickard, N., Hussain-Abdulah, A., Bakker, D. & Seabrook, E., 2016. Development of a Mobile Phone App to Support Self-Monitoring of Emotional Well-Being: A Mental Health Digital Innovation. *JMIR Ment Health*.
- Soegaard, M., 2020. *The Law of Similarity - Gestalt Principles (1)*. [Online]
Available at: <https://www.interaction-design.org/literature/article/the-law-of-similarity-gestalt-principles-1>
- Torous, J. et al., 2019 . Towards a consensus around standards for smartphone apps and digital mental health. *World psychiatry : official journal of the World Psychiatric Association (WPA)*– vol 18, pp. 97-98.
- University of Rochester Medical Center, 2020. *Journaling for Mental Health*. [Online]
Available at:
<https://www.urmc.rochester.edu/encyclopedia/content.aspx?ContentID=4552&ContentTypeID=1#:~:text=It's%20simply%20writing%20down%20your,and%20improve%20your%20mental%20health.>
- WHO, 2019. *Mental Health Action Plan 2013-2020*. [Online]
Available at:
https://www.who.int/mental_health/action_plan_2013/mhap_brochure.pdf?ua=1
- World Health Organization, 2018. *Mental health: strengthening our response*. [Online]
Available at: <https://www.who.int/en/news-room/fact-sheets/detail/mental-health-strengthening-our-response>
- YOU-app, 2015. *The Book of You*. London: Penguin.
- Young, S., 2019. *Susan Young Animation*. [Online]
Available at: <http://www.susanyounganimation.com/research.html>
[Accessed 31 July 2019].