

Birkbeck
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Exploring digital design - The way to produce compelling and engaging websites

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<u>Abstract</u>	3
<u>Introduction</u>	4
<u>What is digital media and its influence on contemporary society</u>	5
<u>Digital media</u>	5
<u>The influence of digital media in today's society</u>	7
<u>Visual design, colour theory and typography</u>	9
<u>Visual design</u>	9
<u>Colour theory</u>	10
<u>Typography</u>	15
<u>Accessibility and usability</u>	17
<u>Accessibility</u>	17
<u>Usability</u>	21
<u>How do accessibility and usability relate?</u>	23
<u>User experience, interaction, emotional and inclusive design</u>	24
<u>User experience design</u>	24
<u>Interaction design</u>	25
<u>Emotional design</u>	28
<u>Inclusive design</u>	29
<u>Final thoughts</u>	31
<u>Appendix: Wireframes and concepts</u>	36
<u>Methodology</u>	36
<u>1. Home page</u>	37
<u>2. Home page - second version</u>	39
<u>3. Home page - third version</u>	41
<u>4. Home page - fourth version with slider/carousel</u>	44
<u>Limitations</u>	46
<u>Bibliography</u>	47

Abstract

You can view this final project online by [clicking here](#) (for optimal experience please access it on a desktop)

Purpose - This study delves into the methods of creating captivating and interactive websites by examining the significance of visual aesthetics, colour theory, typography, accessibility, user-friendliness, user experience, interaction, and emotional and inclusive design in the development process.

Methodology - This study aims to explore user experience phenomena through exploratory research and secondary research. The research will apply the interpretivism theoretical perspective, focusing on social interaction as the basis for knowledge.

Findings - This study concluded that to create visually appealing and user-friendly websites it must consider color theory, typography, accessibility, usability, user experience, emotional and inclusive design.

Practical implications - The literature review and secondary research findings suggest that visual design is crucial in attracting users' attention and engaging websites' visitors. Colour schemes, shapes, pictures, images, white space, typography, usability, accessibility, and information architecture strongly define visual design and attractiveness.

Theoretical implications - Theoretically, this study sheds some light on the importance of visual design in creating a memorable and positive user experience to drive engagement and brand resonance. This research also provides ground for further research.

Keywords - visual design, colour theory, accessibility, usability, emotional design, typography

Introduction

This research explores the relationship between colour theory, typography, composition, visual design, information architecture, usability, and accessibility when designing a website.

To better understand website development, this project will analyse the existing literature and how visual design can enhance digital media engagement and create memorable experiences in a 8,000-word essay.

The essay will investigate concepts and theories from the Master's program, including the definition of visual design, colour theory, typography, accessibility and usability (and how they relate to each other), and will explore different types of design by investigating user experience, inclusive, emotional and interactive interfaces.

Wireframes and conceptual designs will be produced following the insights gained by the literature review to target potential audiences.

Ultimately, this research aims to approach visual design as a pillar for website development, emphasising how it contributes to user journeys, personas, and user experience. The goal is to create a visually compelling website that offers a positive experience to its viewers.

What is digital media and its influence on contemporary society

Digital media

During the second half of the twentieth century, there was a shift from mechanical and analogue electronic technology to digital electronics. This led to the popularisation of digital devices like computers, smartphones, tablets, and watches, referred to as the Digital Revolution or the Third Industrial Revolution by many academics. The digital transformation process has been unfolding organically over the last few decades and has had profound implications in contemporary society. The evolution of technological advancements characterises it (Thompson, 2021; Smith, 2015; Sidhu, 2015; Schoenherr, 2004).

According to Feldman (1997), a revolution happens when events move quickly and suddenly impact people's lives. Digital transformation has been a gradual process but has been significant. Acerbi (2016) suggests that digital culture is an evolutionary process requiring a population-level understanding of individual-level interactions. Cultural evolution offers an approach to perceiving digital media and influencing human behaviour. Digital media is constantly growing.

Kozinets, in his book *Netnography: Redefined* (2015), describes netnography as the appropriation of "social science methods to present a new approach to conducting ethical and thorough ethnographic research" (Kozinets, 2015, p. 2), often referred to as an adaptation of ethnography which aims to analyse human behaviour in online environments as a cultural phenomenon, combining participation and observation of conversations and interactions on the Internet, and 'digital and network data collection, analysis and research' (Kozinets, 2015; Malhotra et al., 2017).

Furthermore, netnography data is often described as 'rich and naturalistic'; it offers researchers the ability to understand the lived realities of customers accurately, as it can be conducted in an 'unobtrusive manner, offering researchers a view of customers' everyday lives' (Kozinets, 2015; Heinonen & Medberg, 2018).

Smith (2013) writes that 'digital' is anything directly related to using computers and their binary language on/off, 1/zero, bits and bytes. (Smith, 2013).

The advent of Web 2.0 was a terminology popularised by Tim O'Reilly when he defined it as the "network as a platform, spanning all connected devices" (O'Reilly, 2007, pg 19) where users could generate content rather than just retrieve information. Web 2.0 facilitated the birth of digital media as it provided a new space for a 'deep and rich experience' in which an unprecedented array of applications and technology facilitates more accessible access to

information and faster interaction between people online (Strickland, 2007). Digital media is a two-way communication system; it offers the audience the possibility of interactivity, as opposed to traditional ways of mass media, mainly one-way communication systems (Smith, 2013).

Dewdney and Ride (2014) state that some definitions of digital media focus primarily on computer technology, and others highlight the 'cultural forms and contexts' in which technology is used. The authors add a third definition of 'cultural concepts' as a set of 'ideas, underlying theories and other discourses' that inform what a digital media practitioner does (Dewdney and Ride, 2014, pg 9).

Bateman (2021) suggests that a digital medium is a medium in which its content is displayed in a 'machine-readable form', or its production and promotion methods also involve information technologies. According to Acerbi (2016), a digital medium is a medium that is encoded in digital format and is transmitted and consumed on electronic/digital devices.

Digital media refers to media stored in machine-readable formats such as digital videos, images, software, web pages, databases, digital audio, and e-books. It can be easily created, modified, shared, accessed, and preserved on digital electronic devices. Unlike print and other analogue media, digital media is not physical and can only be viewed on digital devices (Reyna et al., 2018; Edjudo, 2016; Selwyn, 2015; Shao, 2009; Dewdney & Ride, 2014; Van Dijck, 2009).

This research will mainly focus on websites as a digital medium and their implications in contemporary society. Furthermore, the subject of this study is how visual design influences people's perception of the medium and how it impacts digital engagement.



The influence of digital media in today's society

It is hard to deny that digital media positively or negatively impacts contemporary society. It is part of most people's lives and has become an essential tool for us to navigate the world efficiently. In contemporary society, individuals use digital media to interact with the world and understand how the world works around them.

As aforementioned, various digital mediums, including text, audio, video, and graphics, are transmitted over the internet or through other digital mediums such as television and radio. Numerous Web 2.0 tools are available online for creating digital media; some are free to use (Edjudo, 2016; Shao, 2009; Van Dijck, 2009).

Over the last decades, the rise of electronics, software, social media, and applications has significantly impacted the democratisation of digital media creation online. This process has given individuals the power to create digital media. However, access to technology remains unequal, limiting the scope of this democratisation. The rapid evolution of technology has also created uncertainty about the future. Despite this, everyday users now have greater access to tools and skills, allowing them to experiment with digital media creation and

sharing. However, this has also led to a convoluted online space with inaccurate, poorly designed, and inaccessible content (Reyna et al., 2018; Selwyn, 2015; Baumann, 2013).

Furthermore, we are aware of the changes in contemporary society as per the introduction of digital technologies. Technologies have always impacted how societies behave and interact, for example, the introduction of electricity, telegraph, telephone, automobiles and so on and forth. Digital media currently surrounds most aspects of our lives, if not all. We rely on digital media and technologies to carry out most of our daily tasks, such as booking tickets, looking for directions, searching for recommendations, and so forth. (Uzelac, 2008; Dascal, 2006).

The combination of digital media, the internet, mobile phones, and personal computers has significantly impacted how we view and engage with publishing, entertainment, education, commerce, politics, journalism, and other fields (Das, 2020; Edjudo, 2016; Shao, 2009; Van Dijck, 2009).

Digital media can help people better understand the connections between technological change, globalisation, political institutions, historical developments, democracy, and social change. This understanding can be empowering(Das, 2020).

Digital technologies have harmed our society, including addiction to social media, games, messaging, dating websites, and mobile phones. Other issues include digital plagiarism, copyright infringement, sexual abuse, paedophilia, cybercrimes, and social disconnection.



Visual design, colour theory and typography

Visual design

The Interaction Design Foundation suggests there is more to visual design than aesthetics. It aims to improve a 'design/product's aesthetics and appeal' (Interaction Design Foundation) by carefully using suitable images, typography, space, layout and colour. The visual design looks to develop interfaces that offer a memorable user experience.

According to [usability.gov](#), visual design involves using images, colours, fonts, and other elements to enhance the overall appearance of a website and its related materials.

How do designers develop great visual designs that ultimately can create unforgettable experiences?

According to Watzman (2003), visual design is not a matter of personal preference for colours or trendy typefaces but rather a tangible way of representing product goals. It emphasises the appearance, method, and style of presenting information.

Incorporating principles and tools of visual and experiential design and user perspective (information design) can increase product value, usefulness, and perception. It is the ideal blend of project goals, user perspective, and informed decision-making (Watzman, 2003; Jacko, 2012).

As Hassenzahl et al. (2013) suggested, the main aim was to design 'moments of meaning and pleasure' to avoid negative experiences and frustrations when a user navigates through the website to gather information. In addition, Hassenzahl et al. (2013) argue that 'the pursuit of individual happiness is central in life' (Hassenzahl et al., 2013, pg 1), involving all aspects of it, including some of the most mundane tasks such as using a website.

The concept of experience design that aims to provide an unforgettable experience faces fierce competition, as most designers search for ways to 'satisfy users' needs and desires' through the experience of design consumption (Amic, 2016; Hassenzahl et al., 2013). To handle how user experience works, designers sought to understand how users perceive the design they interact with, which involves usability, mood, feel, and look. Visual design, including images, colour, typography, lines, curves, shapes, and so forth, contributes to how users perceive and interact with the design.

Hartono and Holsapple (2019) suggest that when a user is exposed to an artefact, its visual design qualities will generate cognitive and emotional responses and, therefore, most likely influence its experience or perception. Furthermore, when an individual interacts with an

artefact, and in the case of this study, a website, the user will perceive its aesthetic quality as visually attractive, beautifully displayed and elegant. Of course, we also have to consider its functional qualities - whether it performs well and helps achieve the user's goals and objectives and the meanings and associations it elicits towards the user (Hartono & Holsapple, 2019; Noble & Kumar, 2010; Norma, 2007).

The Interaction Design Foundation suggests using visual design to create and organise website elements to 'lead the user's eye to an item's functionality, and make the aesthetics consistent'. The Foundation argues that the content displayed on a webpage has to give its users the right visual cues, as it will affect how the users perceive, think, feel and are attracted to it.

The visual design's most known elements are listed below:

- Lines (straight, curved, geometric, organic)
- Shapes (enclosed or self-contained areas)
- Colour palette (can contribute to creating theme/tone and attracting attention to the website)
- Texture (also related to the object's surface)
- Typography (font type, family, weight)
- Negative space/whitespace

The Interaction Design Foundation also suggests visual design problems can negatively impact users and send them away almost instantly. The first impression is hugely vital to user experience and engagement.

According to Watzman (2003), it is essential to understand the universal principles of visual organisation. These principles are the foundation for every visual decision and are present in everything we see and do. By understanding these principles, one becomes visually literate.

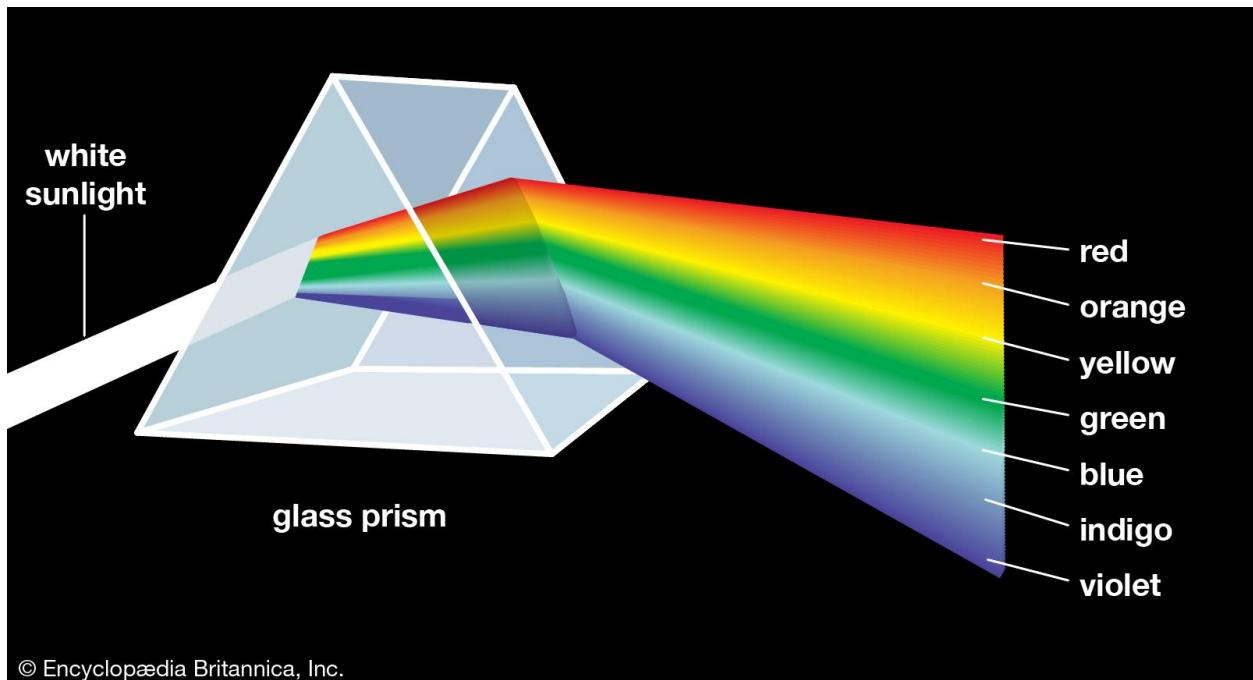
Three fundamental visual communication principles are related but distinct: *harmony*, *balance*, and *simplicity*. Harmony refers to combining different parts in a pleasing and orderly way, while balance achieves a sense of stability and comfort in design. Simplicity embodies clarity, elegance, and economy in design. Achieving visual harmony and balance can be done through symmetry or asymmetry, depending on the design. While simplicity may seem 'easy, accessible and approachable', it often requires more skills. However, a clear and refined design should include only essential elements. Removing these elements could drastically change the composition and make it difficult to understand (Watzman, 2003, pg 266).

Colour theory

What is colour? Fox (2022) says that colour is our only 'constant companion'; it stays with us all day.

Colour is the light that shines on an object and bounces off it. It is a 'visual perceptual property deriving from the spectrum of light interacting with the photoreceptor cells of the eyes' (Wikipedia; Oxford Dictionary).

The first experiment to associate colour and light was conducted by Isaac Newton in 1676. Newton used a triangular prism to analyse 'white sunlight into a visible spectrum of colours' (Itten, 1965, pg 15).



In his experiment, Newton observed the white sunlight entering the prism and dispersing into the spectral colours when leaving. The scientist understood that seven primary colours composed the spectrum. He identified red, orange, yellow, green, blue, indigo and violet (Itten, 1965; Bohren & Clothiaux, 2006; Pantone, 2021).

Lupton and Phillips (2015) write that colour 'can convey a mood, describe reality, or codify information' (Lupton and Phillips, 2015, pg 81).

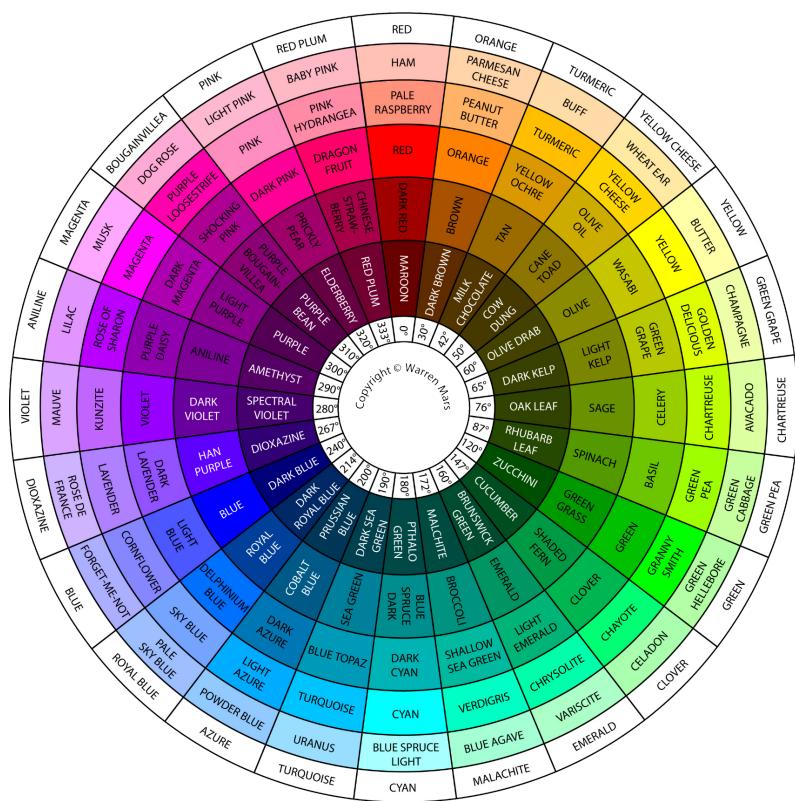
Itten (1965) argues that 'colour is life', meaning that if there were no colour in our world, it would 'appear to us as dead' (Itten, 1965, pg 8). There is nothing more significant to the human mind than the colour itself. Consider how a rainbow affects our minds when it appears in the sky, the shades of sunset, the northern lights, the different hues of blue in the sea, the display of autumn colours or the northern lights.

Fox (2022) writes that colour 'makes everything worth looking at' (Fox, 2022, pg xiii). Edwards (2004) says that colour 'signifies life'; planet Earth's unique colours make life worth living. The

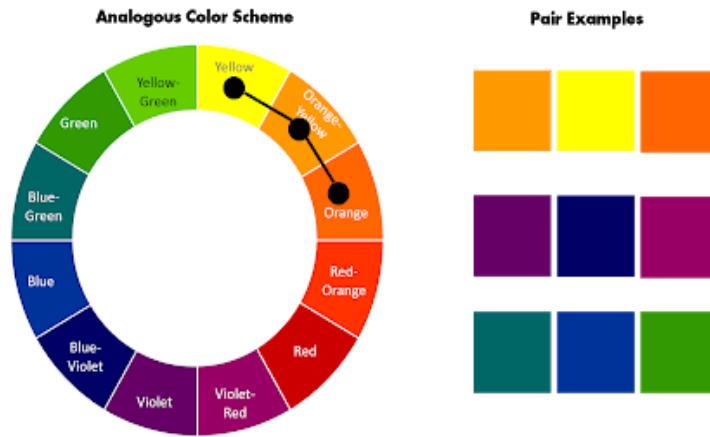
blue of our water, the green from the forests and jungles, the white sand, the red clay or the pink rose are the most extraordinary delight our minds and eyes can encounter.

According to Watzman (2003), colour is the most influential aspect of visual communication, as it elicits emotional, solid and informational reactions. It is also symbolic due to being a shared human experience. Like fashion, colour perception and value are subject to change over time, and they can be used to evoke specific reactions or define a style. Using colours effectively can help users process and distinguish between different types and levels of information more easily. Studies indicate that using one colour effectively can enhance communication by improving speed, accuracy, and retention. However, poorly using multiple colours can reduce effectiveness (Watzman, 2003, pg 277).

The variety of colours in our world brings us to the colour wheel, first organised by Isaac Newton, which is still used in modern days to understand and describe the relationship between colours (Pantone, 2021; Lupton & Phillips, 2015; Edwards, 2004).

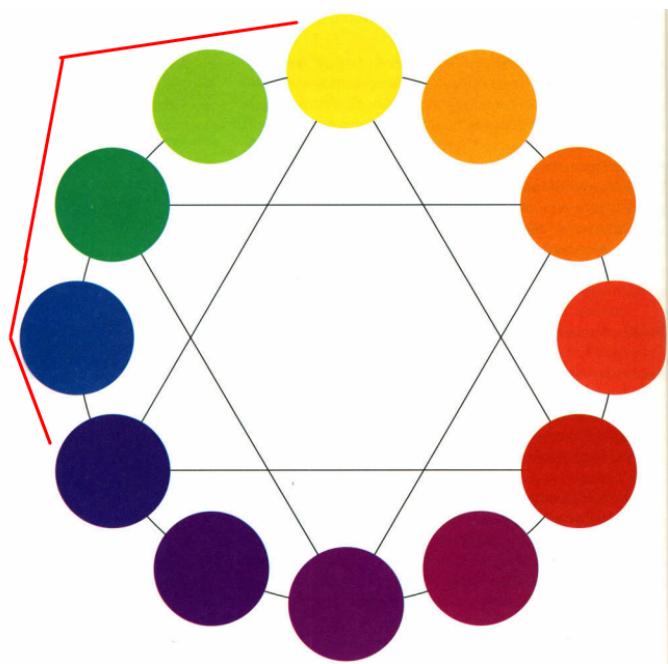


A colour wheel is a valuable tool to designers and artists as it provides an in-depth understanding of how colours relate. It is often said that colours which sit near each other on the spectrum or are close enough to each other provide minimal colour contrast and have great harmony because they have common elements and properties (Pantone, 2021; Lupton & Phillips, 2015; Bohren & Clothiaux, 2006; Edwards, 2004). These colours are called analogous colours as they 'reflect light waves that are similar' (Edwards, 2004, p. 23).

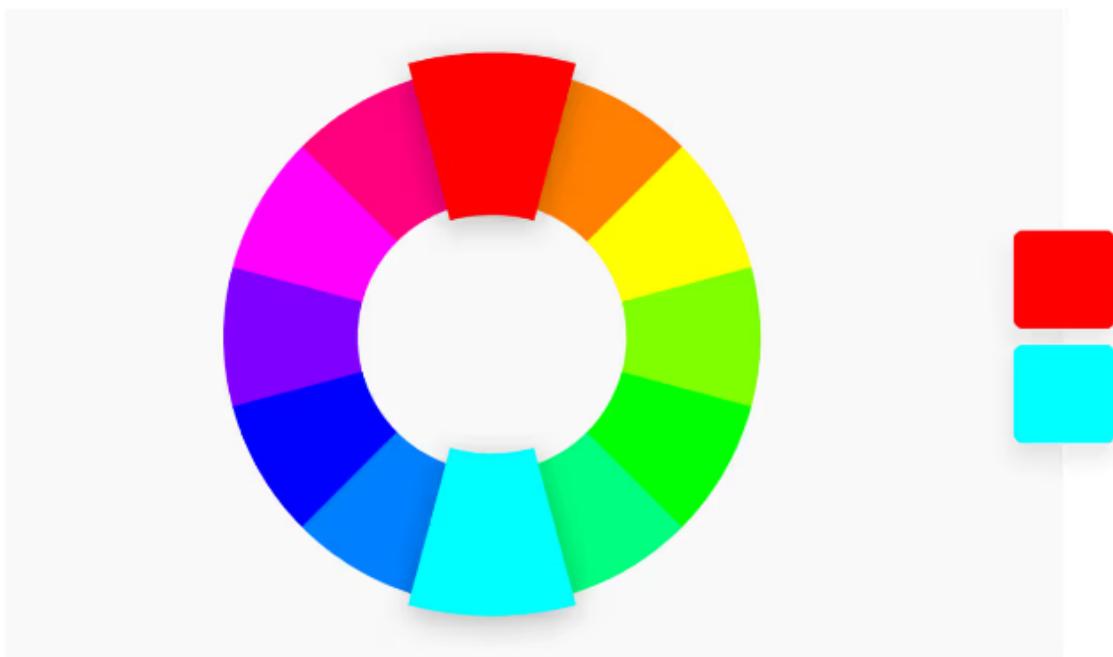


Analogous colours are usually a group of three that sit next to each other on the wheel, and the colour in the middle of them is often referred to as the mother colour. In the illustration above, yellow, orange-yellow and oranges are analogous colours, and the middle one is described as the mother colour (Pantone, 2021; Lupton & Phillips, 2015; Edwards, 2004). Analogous colours look very elegant, precise and charming in the colour palette.

Sometimes, analogous colours can be extended to four or even five colours sitting next to each other. In the illustration below from Edwards' book, *Color - A course in mastering the art of mixing colors*, we can see the five colours on the left sitting nicely next to each other in an analogous scheme, bringing a sense of harmony and elegance to the eye.



Another group of colours are the complementary colours, which sat opposite each other on the colour wheel, as shown in the illustration below. This type of combination provides a 'high contrast and high impact colour combination' (Pantone, 2021; Lupton & Phillips, 2015; Edwards, 2004). It is often said that complementary colours do not share any common element (figure below) and have opposite colour temperatures (Lupton & Phillips, 2015).



Typography

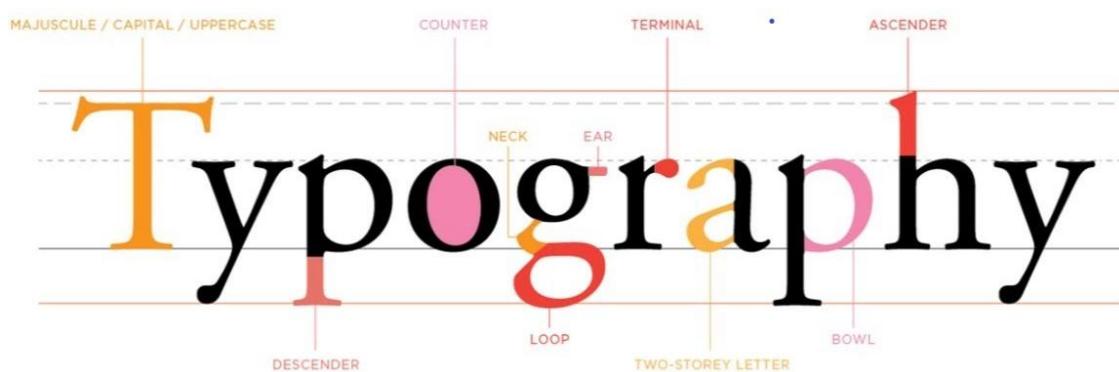
What is a typographer? What is typography? We constantly compose a text, arrange type, process data, and represent characters, letters, and symbols. Typography is the art, technique, or procedure of making understandable language readable and appealing and is the practice of laying out type in a design (Boss & Teague, 2016; Wikipedia; Oxford Dictionary). The word *typography* comes from the Greek language *τύπος typos* "form" or "impression" and *γράφειν graphein* "to write" (Wikipedia).

As aforementioned, typography is how we arrange type in a design. It deals with various elements such as size, spacing, colour, styles of type, weight, and format. The practice of typography also involves other related matters; for instance, a typographer might consider the selection of paper, the type of ink to be used, and how it will bind together pages in a book or a printing. It also relates to other components in a page or webpage, such as photographs, illustrations, shapes, and the interface itself (Well & Preece, 2020; Boss & Teague, 2016).

Warden (1956), in her essay, *The Crystal Goblet*, states that "the front door of the science of typography" (Warden, 1956, p. 12) is that "printing is what conveys thought, ideas, images, from one mind to the other" (Warden, 1956, p. 12).

Well and Preece (2020) write that the typographer is not expressing his 'aesthetic views and needs' but allowing a 'connection between someone who has something to say and someone to say it to' (Well & Preece, 2020).

Boss and Teague (2016) argue that everyone nowadays is a typographer. We go to a computer and type anything on the word processor, which makes us a typographer. Whether what we type is beautiful or good is up to how committed we are. How committed we are to kerning, leading, and tracking.



Spiekermann and Ginger (2003) state that typography is everywhere. It is hard to picture our contemporary world without 'type'. Furthermore, they say that newspapers get their 'look

and feel' from the type they choose, and readers recognise their favourite papers because they have a distinct look (Spiekermann & Ginger, 2003).

Watzman (2003) defines typography as the foundation of visual design and involves 'defining and arranging the appearance of the type' (Watzman, 2003, pg 268). Mastering this skill is crucial in visual design since it is the 'smallest definable part of a design', like a pixel to a screen display. A thorough understanding of typography principles can be transferred to complex design issues such as 'page and product design' (Watzman, 2003, pg 268). The choice of typeface affects legibility, which is the ability to read and comprehend what is written.

Furthermore, Watzman (2003) suggests that selecting the right typeface takes experience and understanding since an enormous variety of typefaces are available and different ways to manipulate them (Watzman, 2003).

In addition, Watzmann (2003) points out that choosing the right typography can significantly enhance the reading experience, making it effortless and enjoyable. On the other hand, choosing the wrong font can cause frustration and fatigue, impacting product acceptance and setting a negative mood. For instance, outdated typefaces can make a newsletter look old-fashioned, while typefaces with thick and thin strokes can make a web page unreadable. As such, designers must clearly understand typography principles to make informed choices (Watzman, 2003, pg 268).

Rutter (2017) also argues that we are all typographers and that web typography matters, as he agrees with Warden (1956) on the fact that typography allows a message to go from one mind to the other, or in other words, connects the author and the reader (Rutter, 2017). Further, the author points out that most web content consists of words, which questions the reading experience. Therefore, how the words are displayed on the web needs to contribute to the reader's experience.

In addition, Reichenstein (2011) writes that ' web design is about 95% typography'. Why does the author argue that? He argues that '95% of the web information is written language' (Rutter, 2017, pg3),, which takes us to understand that a web designer should get typography training as it is the primary discipline that gives written information its shape, feel and look.

Is typography an art? Well and Preece (2020) suggest that it is not fine art despite fine typography. The authors approach it as a helpful art because it provides a bridge between the writer and the reader and takes into consideration aesthetics, taste, and imagination.

Rutter (2017) quotes the designer Herman Zapf to argue that typography is sometimes misinterpreted as a 'form of private self-expression'. In addition, the author also points to another designer Emil Ruder, to explain that the 'one plain duty' of typography is to deliver information in writing (Rutter, 2017, pg4).

Accessibility and usability

When developing and designing a website and web tools, it is imperative to ensure that accessibility elements are in place to guarantee access for all users, regardless if they access the Internet via mainstream or assistive technology. Accessibility and usability should be taken into consideration when developing a visual design.

Accessibility

"The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect." Tim Berners-Lee

It is essential to recognise that web accessibility involves creating user-friendly websites for as many people as possible. This best practice in web development aims to promote inclusivity. (Mozilla Developers; The Interaction Design Foundation).

The web accessibility approach involves 'making web content available to all individuals' (Mankoff et al., 2005), regardless if web users have any type of disability, such as visual impairment or neuromotor, or might experience environmental constraints (Petrie et al., 2015).

People with disabilities can use websites and web tools if designed and coded correctly. Unfortunately, many sites and tools have accessibility barriers that make them inaccessible to some individuals. It is essential to make the web accessible because it benefits individuals, businesses, and society as a whole. International web standards provide guidelines for ensuring accessibility (W3C).

In their research, Mankoff et al. (2005) cite that in 1995, there were 8.1 million Americans who had visual impairments, with 1.3 million being blind. In 1999, it was reported that 196,000 Americans over 15 with a "severe limitation in seeing" had access to the internet, with half of them being regular computer users. Since then, the number of blind regular computer and web users has only increased. However, many web pages are still inaccessible, with over half of the 50 most popular websites being only partly accessible or inaccessible (Sullivan & Matson, 2000). Blind users often experience problems ranging from minor annoyances, such as poorly named links, to critical issues that require them to abandon a task or get sighted help, such as important text displayed only in a graphic or form fields with incorrect or missing labels and names. One example of a critical accessibility problem that sighted users may view as innocuous or annoying is popup windows (Mankoff et al., 2005).

According to the Statista website, approximately 13.3 million people in the UK have a disability. Among them, 8% of men and 0.5% of women are colour-blind, while 10% of the UK population have dyslexia. Additionally, over 2 million people in the UK have sight loss, and 19% of the population suffer from hearing loss, of which 6.5 million are over 60. Moreover, 1.5 million people in the UK have a learning difficulty, and 2.4 million people have issues with manual dexterity.

The World Wide Web Consortium (W3C) establishes standards for accessible design. It is available at Web Content Accessibility Guidelines (WCAG), such as using a content management system (CMS) that supports accessibility standards, using alt text on content-enhancing images, improving visibility with careful colour selection and contrast, using HTML elements adequately, keyboard access, and so forth (W3C, Interaction Design Foundation, Mozilla Developers).

The World Wide Web Consortium (W3C) - Web Accessibility Initiative (WAI) also develops guidelines that are highly regarded as the international standard for web accessibility and strongly recommends that websites and web tools are designed and coded in a way that those users who have any degree of disability can access and use them. According to W3C WAI, when a website or web tool is accessible, individuals, society, and organisations benefit. Tim Berners-Lee, W3C director and inventor of the World Wide Web, argues that "the power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect" (W3C).

The guidelines for an accessible website include a variety of recommendations to support developers and designers in making the web an accessible and inclusive place. According to the Web Content Accessibility Guidelines (WCAG) 2.0, there are four different principles that designers should pay attention to when developing and designing a website:

- 1) **Perceivable** - users should be able to perceive the information and user interface components easily. They should be presented and displayed. This principle encompasses the following guidelines: a) **text alternatives**: providing text alternatives for any non-text content, such as large print, braille, speech, symbols or more straightforward language; b) **time-based media**: providing alternatives for time-based media; c) adaptability: offering content that can be presented in alternative ways without losing its informational and structural capabilities; d) distinguishable: users being able to see and hear content, being able to separate foreground from background successfully.
- 2) **Operable** - an interface must not include features and functionalities that a user cannot operate. This principle englobes the following guidelines: a) **keyboard accessible**: this means that all functionality of the content has to be operable through the keyboard, for instance; b) **enough time**: giving enough time for users to read and use the content available; c) **avoiding seizures**: do not design content that may cause

or being known by causing seizures in people. d) navigable: developing and providing ways that users can navigate, find content, and determine where they are.

3) **Understandable** - Information and the operation of the user interface must be understandable. This principle suggests the following guidelines: a) **readable**: all texts must be readable and understandable so that the user can make sense of it; b) **predictable**: making sure that web pages behave and operate predictably with consistent navigation and identification; c) **input assistance**: providing enough help for users to be able to avoid and correct mistakes.

4) **Robust** - content must be robust enough to be interpreted reliably by various user agents, including assistive technologies.

According to the Mozilla Developer Network (MDN), accessibility means creating content that can be easily used by people with different physical and cognitive abilities, no matter how they access the web. This not only helps those with disabilities but also benefits other users, like those on mobile devices or with slow internet connections.

The MDN website guides how to use HTML correctly for better website accessibility. It emphasises the importance of using appropriate HTML elements 'for their intended purpose'. For instance, HTML <buttons> have default styling and keyboard accessibility features, which can be overridden if necessary. Users can easily navigate between buttons using the Tab key and select them with Space, Return, or Enter keys ([MDN](#)). In addition, developers from the MDN website also highlight that semantic HTML is easier to develop with, has a better mobile display and is suitable for SEO - to help customers find documents more accessible, it is essential to include keywords in headings, links, and other semantic elements rather than in non-semantic <divs>. Search engines prioritise these elements when indexing content ([MDN](#)).

Additionally, the MDN website provides extra guidance for coding with screen reader users in mind. Creating well-structured content is an effective way to improve accessibility. This includes headings, paragraphs, and lists. An example of a reasonable structure provided by ([MDN](#)), would be as follows:

```
<h1>My heading</h1>
```

```
<p>This is the first section of my document.</p>
```

```
<p> I will add another paragraph here, too.</p>
```

```
<ol>
  <li>Here is</li>
  <li>a list for</li>
  <li>you to read</li>
</ol>
```

```
<h2>My subheading</h2>
```

```
<p>
```

This is the first subsection of my document. I would love people to be able to find this content!

```
</p>
```

```
<h2>My 2nd subheading</h2>
```

```
<p>
```

This is the second subsection of my content, which is more interesting than the last one.

```
</p>
```

Following a semantic HTML structure, as in the example above, is fundamental for screen readers to read each header and to help distinguish headings from paragraphs. They pause after each element, and the website users can navigate at their own pace. They can also jump to the next or previous heading or use a list of all headings as a table of contents to find specific content.

When coding a website, it is essential to use proper semantics in CSS and JavaScript to ensure accessibility. The [MDN website](#) offers helpful advice on selecting appropriate font sizes, line heights, and letter spacing for text to make it easy to read. Use a more extensive and bolder font than the body text to make headings stand out. Similarly, lists should be formatted to look like lists. Additionally, ensuring that the text colour contrasts nicely with the background colour to improve legibility is vital.

Why are the principles of accessibility important when designing and developing websites and web tools? As aforementioned, this research understands that it is important to develop HTML and CVSS codes that incorporate these principles semantically to make websites and web tools accessible. For example, by providing text alternatives for non-text content, blind users can access images, and they can be easily read by screen readers or text-to-speech software, or even text-to-Braille hardware. Also, if text and images can be enlarged, those users with visual impairment disabilities can see them. Using colours carefully to avoid making it hard to read or perceive, ensuring that links are underlined or somehow differentiated, not only coloured, provides accessibility to colour-blind users. Making features and functionalities accessible through a keyboard helps navigation and does not exclude those who can thoroughly control a computer mouse.



Usability

The Nielsen Norman Group defines usability as a 'quality attribute' that helps assess whether an interface is easy to use and accomplish a task. The group suggests five main quality components, listed below:

1. Learnability - When a user encounters the design, does he/she find it easy to carry out a task?
2. Efficiency - Once users are familiar with the interface design, do they efficiently perform tasks or encounter difficulties?
3. Memorability - Can users recall how to use the interface design once they return to it after a period of absence? Is the interface design easy to remember?
4. Errors - How easily can users learn from errors and mistakes? Can they recover from these errors and perform the intended task?
5. Satisfaction - Do users enjoy using the interface? Does it give users satisfaction in using the design?

Usability is vital for the interface's success; if users find it hard to use, they will not have memorable experiences and will likely not return to it.

User experience and usability are closely related. According to the International Standard for Standardisation, user experience refers to a person's perception and response when using a product, system, or service. In other words, a website or app's overall feeling and perception depend on its usability. If a website is challenging to navigate, find information or purchase, the user experience will likely be poor. Conversely, if a website is easy to use and navigate, the user experience will be satisfying. Therefore, usability is crucial in ensuring a positive user experience ([The Nielsen Norman Group](#), [The Interaction Design Foundation](#)).

Usability 101: Introduction to Usability

Learnability

Efficiency

Memorability

Errors

Satisfaction

nngroup.com

NN/g

According to Preece et al. (2015), usability goals typically aim to meet specific criteria related to efficiency, while user experience goals focus on understanding the nature of the user's experience, such as creating an aesthetically pleasing experience. In addition, Preece et al. (2015) argue that usability and user experience are intertwined. While usability is crucial, appearance and feel also impact the user experience. It is essential to consider both when designing. Human-Computer Interaction has expanded to cover broader user experience beyond usability (Preece et al., 2015, pg19).

According to Benyon (2019), a highly usable system should possess the following qualities:

- It should be efficient, meaning users can complete tasks with minimal effort.
- It should be adequate and appropriately organised with the necessary functions and information.
- It should be easy to learn and remember how to use.
- It should be safe to use in various contexts.
- It should provide a high level of utility by fulfilling the tasks users need to accomplish.

Gould and Lewis (1985) write that when creating a system for people to use, it should be designed to be quickly learned and remembered. Additionally, it should be helpful by containing functions necessary for their work while being user-friendly and enjoyable.

The three fundamental principles Gould and Lewis (1985) recommended are as follows:

1. Early focus on users and tasks - designers need to know their target audience. This involves studying their 'cognitive, behavioural, anthropometric, and attitudinal characteristics' and the type of work they will do.

2. Empirical Measurement - to ensure the effectiveness of the development process, it is advisable to involve intended users in the early stages and have them use simulations and prototypes to perform actual tasks. It is important to closely observe, record, and analyse their performance and reactions.
3. Iterative design - problems are bound to arise in user testing and must be addressed. This calls for an iterative design process that involves a repeated cycle of designing, testing, measuring, and redesigning until all issues are resolved.

How do accessibility and usability relate?

Accessibility ensures web access for all people regardless of whether they use assistive or mainstream technology. On the other hand, usability is all about designing effective, efficient, and satisfying products. The two concepts overlap and are crucial to the overall user experience. If a website or web tool is not accessible to users with assistive technology, it becomes unusable and fails its usability. Unfortunately, accessibility is not always included in the usability elements of a web or web tool, despite its importance.

User experience, interaction, emotional and inclusive design

User experience design

Before designing a user experience, it is essential to understand the targeted user's needs, behaviours, motivations, and frustrations through interviews, surveys, questionnaires, and usability evaluations (usability.gov).

Benyon (2019) suggests a framework for UX designers called PACT, which stands for People, Activities, Contexts, and Technology. This framework helps designers understand users' needs and translate them into pleasing designs. People vary physically and psychologically, and how they use technology and systems varies. Activities are similar for all users but differ in how users undertake them. Context is associated with activities and should always be analysed together. Technology is the medium that UX designers work with. It is directly related to how technology inputs and outputs information, how it is displayed, and how it communicates with its users (Benyon, 2019).

Establishing the main objective and the proposed method's intended achievement is crucial when developing an interactive design. Defining the primary user group by creating frameworks describing them is the first step in understanding the user. Emotions play a significant role in the user experience, and it is essential to develop an interaction design that puts humans at the centre and searches for solutions to facilitate this interaction (usability.gov).

Preece et al. (2015) point out that when developing an interactive design, one should establish the main objective and what the proposed method tries to achieve.

Unger & Chandler (2012) suggest a range of 'techniques that can be used throughout the project life' to understand the user or 'test out their behaviour' on different site versions (Unger & Chandler, 2012, chapter 6). According to Unger & Chandler (2012), the first step is to define the primary user group by 'creating frameworks' describing them.

Bardzell (2016) argues that a 'user' is a person who 'completes a task within ergonomic limits'.

In addition, Preece et al. (2015) elaborate on the relation between emotions and the user experience, giving much thought to the 'rollercoaster of emotions that many of us experiences' (Preece et al., 2015, pg 166). It is pretty hard to keep a user happy most of the time they interact with the design. However, developing an interaction design that puts humans in the centre and searches for solutions to facilitate this interaction is possible.

As Hassenzahl et al. (2013) suggest, the main aim is to design 'moments of meaning and pleasure', trying to avoid negative experiences and frustrations when the 'user' navigates the website. In addition, Hassenzahl et al. (2013) argue that 'the pursuit of individual happiness is central in life' (Hassenzahl et al., 2013, pg 1), and it involves all aspects of it, including some of the most mundane tasks such as using a website.

Interaction design

Cooper et al. (2007) state that interaction design shapes human behaviour. The authors argue that design methods impact people's behaviour, whether through architecture, which influences how people use physical space, or graphic design, which aims to elicit a specific response. With the advent of digital products like computers, cars, and mobile phones, user behaviour has become more complex. For example, the various technological features in modern vehicles affect how users interact with them. Interaction design draws on traditional design, usability, and engineering disciplines to address these challenges (Cooper et al., 2007, pg xvii).

In addition, Cooper et al. (2007) also argue that Interaction Design is the solution to excellent visual design creation, which is the interaction between solid design principles and patterns. According to the authors, interaction design principles are applicable guidelines for 'behaviour, form and content' (Cooper et al., 2007, pg 150). Interaction Design aims to prioritise users' needs and goals and ensure a positive user experience in product design.

Furthermore, interaction design patterns are an effort to 'formalise design knowledge and keep best practices' to improve the quality of design solutions (Cooper et al., 2007, pg 156).

The Interaction Design Foundation defines Interaction Design as the design of user-product interactions. When a user interacts with a product, various elements are involved, such as aesthetics, motion, sound, and space. These elements can even encompass specialised fields like sound design for creating sounds used in user interactions (interaction-design.org). Although Interaction and User Experience design have similarities, User Experience design is a broader field. It involves researching users, creating user personas, and conducting user and usability testing. Its primary goal is to shape the entire experience of using a product, not just the interaction between the user and the product (interaction-design.org).

Designers often use Interaction Design to enhance their designs and promote products. However, designers must understand that Interaction Design is not just about making applications visually appealing but also about creating a user-centric experience.

Interaction Design focuses on how users interact with a product, from global navigation that stays visible as the user scrolls to smart suggestions that appear as the user types in a search

bar. This includes buttons, links, forms, pop-ups, alerts, listings, and entire pages. Interaction Design is crucial to creating a great user experience (Walia, 2016; interaction-design.org).

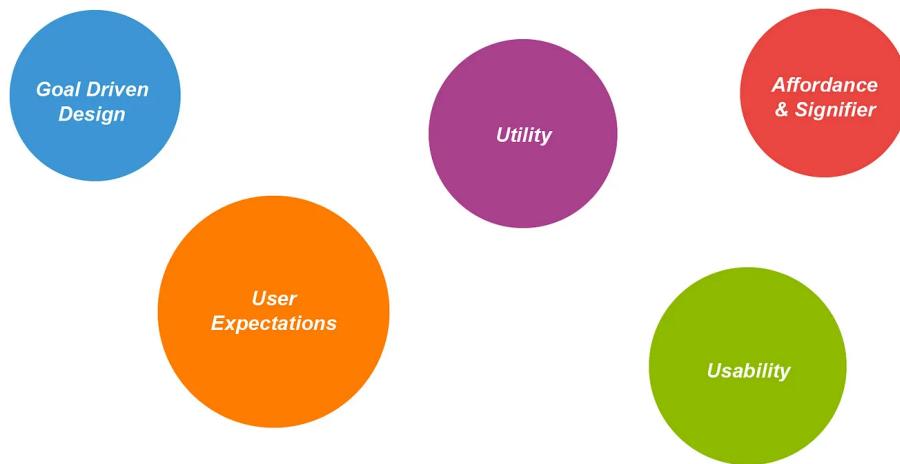
Interaction design is crucial for creating engaging user experiences. It involves incorporating logical behaviours and actions into an application's elements or components to maximise value and satisfaction. By prioritising Interaction design, designers can create the best possible user experiences (Preece et al., 2015; Cao, 2015; Walia, 2016; Cooper et al., 2007).

Preece et al. (2015) suggest that interaction design should focus on discovering 'requirements' for the website and designing to fulfil them. Furthermore, Preece et al. (2015) also point out the need for a user-centred approach when developing systems and software. For this research, the main goal or requirement was to propose a visual design that enhances engagement and gives the 'user' a memorable experience.

In interaction design, the concept is seated on five pillars, as explained below (Preece et al., 2015; Cao, 2015; Walia, 2016; Cooper et al., 2007):

Interaction Design

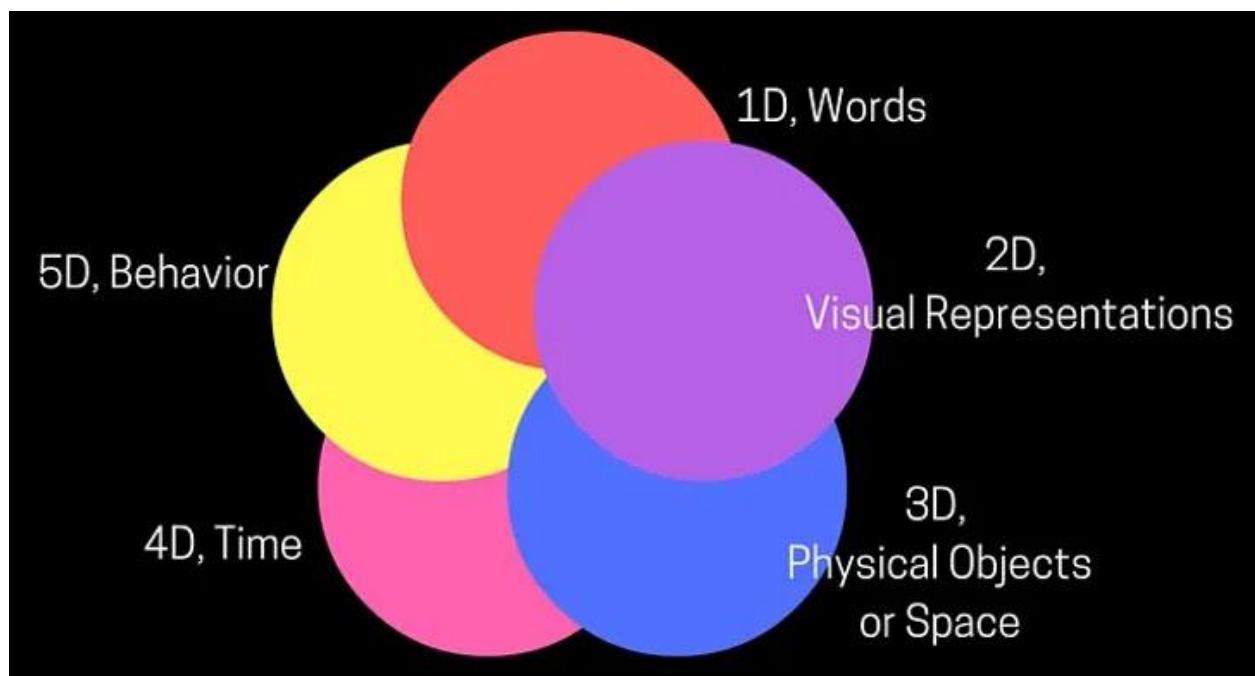
5 Pillars of Interaction Design(IxD)



1. **Goal-driven design** - Understanding the individuals experiencing the problem is crucial in user research. Identifying the persona of the user helps uncover relevant scenarios and issues. User stories aid in defining our goals. We can create a well-designed solution.
2. **Usability** - The term "usability" pertains to how easily a user can access and use a product or service. Usability dramatically impacts the overall user experience. The

application should be user-friendly, allowing users to complete tasks without spending too much time figuring out how to use it. It should be easy to understand and use its functions.

3. **Affordance and Signifier** - One of the most critical goals in interaction design is creating affordance, which refers to the actions that an object or environment physically enables. When an object is designed to be clear and straightforward, users are less likely to become confused or frustrated by uncertain actions. Creating clear affordance can significantly improve the user's experience with the application and reduce their likelihood of quitting.
4. **Utility** - When determining the usefulness of a function, it is crucial to consider if it serves a purpose or solves a problem for the user. More than simply having a high-quality user interface is required. A function must have logical reasoning behind it in order to complete a valuable task. Ultimately, the user's experience and satisfaction should be the top priority.
5. **User expectations** - when using an application, users expect specific reactions to their actions. Interaction design is all about confirming expected behaviour.



The Five Languages or Dimensions of Interaction Design - Interaction Design Foundation

The Interaction Design Foundation cites five functional dimensions (image above) to understand the Interaction Design methodology. They are explained as follows:

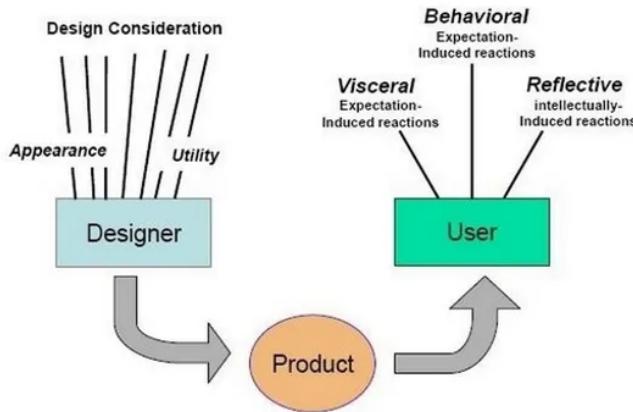
- 1. Words** - When using words in interactions, such as button labels, making them clear and easy to understand is essential. They should convey information without confusing or overwhelming the user.
- 2. Visual representations** - To enhance the communication of information to users, visual representations such as images, typography, and icons are used alongside words.
- 3. Physical objects and space** - determine how users interact with a product, whether a laptop with a mouse, touchpad, or smartphone with their fingers. The interaction can also be influenced by the physical surroundings in which the user is located.
- 4. Time** - refers to media that includes animation, videos, and sounds that change over time. These elements provide visual and audio feedback to users during their interaction. Users should be able to track their progress and resume their interaction later.
- 5. Behaviour** - the aspect of a product or website refers to how users interact with it, including their actions, emotional responses and feedback. This includes the mechanism of the product and how it operates.

Emotional design

This statement takes us to the three levels of emotional design: visceral, behavioural and reflective. According to Norman (2004), the visceral level of design is entirely out of our control; it is almost an instinctive reaction. Visceral design relates to 'physical features', such as the look and feel of a design. It is often associated with sleekness, elegance and excitement. Therefore, it is highly concerned with appearances, how an object or product looks and how they make a user feel about it. It is often called deep-rooted, unconscious, subjective, and intuitive feelings.

Behavioural design refers to 'performance, pleasure and effectiveness of use' (Norman, 2004; Interaction Design Foundation). This level of design is prevalent amongst the usability community as what matters for this level is 'function, understandability, usability and physical feel' (Norman, 2004, pg 70). Behavioural designers are interested in how users do their activities and how effectively and accurately users achieve their objectives when using a product design. Therefore, a behavioural design must pass the preliminary test of whether it fulfils users' needs.

The last level of design proposed by Norman (2004) is the reflective design, described as 'all about the message, culture, and the meaning of a product design or its use' (Norman, 2004, pg 83). It is considered the highest level of emotional design, in which designers give much thought and attention.



Three levels of emotional design - Don Norman

Inclusive design

Joyce (2022) states that inclusive design involves creating products accommodating people from all backgrounds and abilities. This approach considers accessibility, age, economic status, location, language, and race.

According to the Microsoft Inclusive Design project, Inclusive Design is a methodology that originates from digital environments and caters to human diversity. It emphasises the inclusion and incorporation of people with varied perspectives. The Project developed by Microsoft defines principles that guide designers when developing a digital design. Recognising exclusion, acknowledging biases, and learning from diversity are important to solve problems that extend to as many people as possible.

In addition, Joyce (2022) highlights that a thorough comprehension of user backgrounds and abilities drives inclusive product experiences. Prioritising inclusive design in digital interfaces can 'positively impact the user experience by creating a sense of belonging'.

Waller et al. (2015) approach Inclusive Design as the success in developing a product, which involves understanding the diversity within the population and making informed design decisions that respond to this diversity. Furthermore, Waller et al. (2015) state that Inclusive design involves considering customer diversity when designing mainstream products. This approach aims to meet the needs of a broader range of people and ultimately achieve commercial success.

Often, Interaction Design is compared to Universal Design, which involves creating products that can be used by individuals with a wide range of abilities and in various situations. What is the difference between them? When UX designers use universal design, they may classify individuals who do not fit the mould of an "average user" as an "edge case." Unfortunately, this can lead to overlooking their unique needs. Inclusive design, however, considers both the needs of the average user and those with exceptional circumstances (Joyce, 2022; Persson et al., 2015; Waller et al., 2015).

Final thoughts

This research delved into techniques for creating engaging and interactive websites. It analysed the importance of visual aesthetics, colour theory, typography, accessibility, user-friendliness, user experience, interaction, and inclusive design throughout development.

This study used exploratory and secondary research to examine the user experience while focusing on social interaction as the basis for knowledge from an interpretivism theoretical perspective.

To better comprehend digital media's impact on modern society, it was necessary to investigate the concept of digital media and how its popularity and use have evolved with the introduction of computers, smartphones, tablets, and watches over the past few decades.

Furthermore, the emergence of Web 2.0, which allows users to create content rather than solely access information, provides users with a more profound and engaging experience.

Digital media has both positive and negative impacts on society. It has become vital for navigating the world; people use it to interact and understand their surroundings. Various mediums are transmitted over the internet, and tools are available for creating digital media.

This has given individuals the power to create, but technology access still needs improvement. Digital media is crucial for various fields but can also cause addiction and harm society.

Visual design enhances product appeal and user experience by using images, typography, layout, space, and colour to improve website appearance.

This research also understands that designers achieve visually appealing designs by creating tangible representations of product goals. The main objective is to design "moments of meaning and pleasure" to prevent negative experiences and frustrations while navigating the website.

The fundamental visual design elements are lines, shapes, colour palette, texture, typography, and negative space or whitespace. Understanding the universal principles of visual organisation is crucial to achieving harmony, balance, and simplicity.

Colour is a characteristic of light that we perceive through our eyes. Isaac Newton identified seven primary colours: red, orange, yellow, green, blue, indigo and violet. Colour can communicate emotions, represent reality or organise data. It is the most potent element of visual communication, but misusing multiple colours can decrease its impact. Designers and

artists use the colour wheel to comprehend the connection between colours. Analogous colours blend well, while complementary colours create a striking contrast.

The colour scheme chosen for the design/website concept illustrated in the Wireframes and Concepts section is as follows: Dark Cyan (RGB 0, 56, 67 HEX #008eaa), Dark Blue (RGB 0, 21, 58 HEX #003594), Vivid Orange (RGB 100, 78, 17 HEX #ffc72c), Very Dark Magenta (RGB 39, 15, 40 HEX #642667), as primary colour scheme.

In addition, the following HEX numbers were used as a secondary colour scheme: #B033A4 (Dark Pink), #11406D (Very Dark Cyan), #208ECF (Strong Cyan), #1F6B47 (Very Dark Cyan - Lime Green), #B03333 (Dark Red), #ffffff (White) and #000000 (Black).

Colour palette

Primary colours



Dark Blue
RGB 0, 21, 58
HEX #003594



Very Dark Magenta
RGB 39, 15, 40
HEX #642667



Dark Cyan
RGB 0, 56, 67
HEX #008eaa



Vivid Orange
RGB 100, 78, 17
HEX #ffc72c

Secondary colours



Dark Pink
RGB 176, 51, 164
HEX #b033a4



Very Dark Cyan
RGB 17, 64, 109
HEX #11406d



Strong Cyan
RGB 32, 142, 207
HEX #208ecf



Lime Green
RGB 31, 107, 71
HEX #1f6b47



Dark Red
RGB 176, 51, 51
HEX #b03333



White
RGB 255, 255, 255
HEX #ffffff



Black
RGB 0, 0, 0
HEX #000000

* All colours are generated by using Color Hexa - Color Encyclopaedia: information and conversion

Fox (2022) identifies three types of colour meanings. The first is based on affective psychology, such as red being energetic and brown being lethargic. The second is based on social conventions, such as red signals indicating warnings and white flags indicating surrender. The third type is generated by association and is the richest historically.

For this research, dark blue was chosen as a primary colour for its elegance, authority and intelligence. It signifies professionalism and reliability. Dark magenta was chosen for being known to encourage people to be original and creative, daring to be themselves by expressing their authentic version. Dark cyan was picked for the project as it provides harmony towards the magenta and the dark blue hue. The vivid orange, chosen for the call-to-action buttons, brings enthusiasm and cheerfulness and gives an extra layer of attraction to the human eye ([Colour-Meanings](#)).

Typography plays a vital role in visual design by choosing and arranging fonts. It impacts readability and can either improve or diminish the reading experience. Typography is more significant in web design since most web content comprises text. Although not considered fine art, typography is a valuable art that connects the author and the audience. Its main objective is to convey information through writing.

The font family chosen for this project is Ubuntu. It was selected for its clarity and accessibility in print and on-screen media. Additionally, it is available in various weights and styles and is a sans-serif, OpenType-based humanist typeface. It was initially developed as the default font of the Ubuntu operating system, with its spacing and kerning optimized for body copy sizes ([Figma.com](#)).

Font type

Ubuntu - Light

Ubuntu - Light italic

Ubuntu - Regular

Ubuntu - Italic

Ubuntu - medium

Ubuntu - medium italic

Ubuntu - bold

Ubuntu - bold italic

When designing a website or web tools, it is crucial to incorporate accessibility features for all users, regardless of whether they use mainstream or assistive technology. Web accessibility involves creating websites that are user-friendly and accessible to as many people as possible. International web standards offer guidelines to ensure accessibility, promote inclusivity and benefit individuals, businesses, and society.

Usability is crucial for the success of an interface. The Nielsen Norman Group identifies five quality components: learnability, efficiency, memorability, errors, and satisfaction. A highly usable system should be efficient, organised, easy to learn and remember, safe, and valuable. To achieve this, designers should focus on users and tasks early on and employ an iterative design process.

When creating a user experience, it is crucial to understand the needs, behaviours, motivations, and frustrations of the target audience through interviews, surveys, questionnaires, and usability evaluations. PACT, a framework developed by Benyon (2019) for

UX designers, stands for People, Activities, Contexts, and Technology. This framework helps designers comprehend the user's needs and transform them into aesthetically pleasing designs.

Design impacts human behaviour, both physically and digitally. Interaction design focuses on user-product interactions, including aesthetics and specialized fields. It emphasises user needs and goals for a positive experience. It is essential to prioritise the user experience, not just aesthetics and encompasses various aspects such as navigation, buttons, forms, and pages. By prioritising Interaction Design, designers can create engaging user experiences.

Emotional design has three levels: visceral, behavioural, and reflective. The visceral level focuses on appearance, evoking positive feelings. Behavioural design prioritises usability and effectiveness. Reflective design conveys a meaningful message and connection to users. Combining all three levels results in products that look good, function well, and have a deeper meaning.

Inclusive design involves creating products that cater to people from all backgrounds and abilities, considering factors like accessibility, age, economic status, location, language, and race. This methodology originates from digital environments and emphasises the importance of including people with different perspectives in the design process. The inclusive design considers the needs of the average user and those with exceptional circumstances, aiming to meet the needs of a broader range of people.

This study emphasised the importance of creating visually appealing, user-friendly, and accessible websites that consider colour theory, typography, usability, emotional and inclusive design, and user experience.

Finally, this research concludes that designers must focus on users and tasks early on, understand user needs, and employ an iterative design process to create efficient, organised, easy-to-learn, safe, and valuable systems that comply with international web standards.

Appendix: Wireframes and concepts

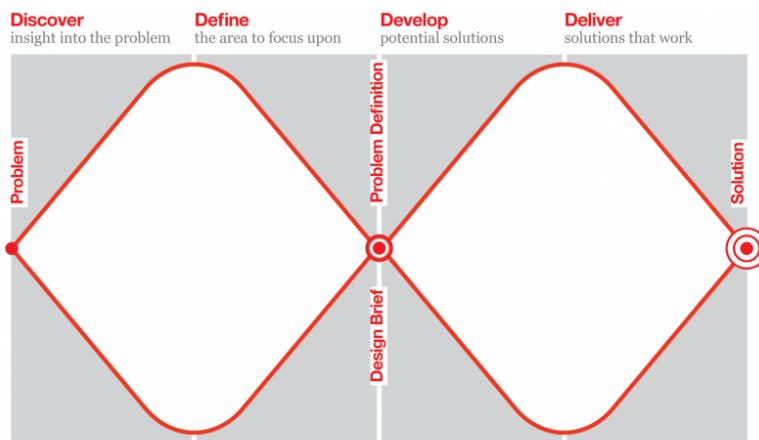
You can access the appendix, containing PDS files, the PDF version of the project, and the wireframes and conceptual design [here](#).

Methodology

This study explores user experience phenomena through exploratory research and secondary research. Understanding your design research data is crucial in order to generate valuable insights that can be acted upon. This research will apply the interpretivism theoretical perspective, focusing on social interaction as the basis for knowledge.

Interpretivism focuses its approach on 'social interaction as the basis for knowledge' (O'Donoghue, 2007), to understand and make meaning of the world the individual must interpret it (Schwandt, 1994). It allows the researcher to analyse the study in-depth, with "greater sophistication without a statistically secure universalisation of findings" (Hackley, 2003, pg 7). According to Malhotra et al (2017), the interpretive intends to explore the research question in a "dynamic, participant-constructed and evolving nature of reality" (Malhotra et al, 2017, pg 69), taking into more significant consideration that there might be a wide range of interpretations of 'realities or social acts', the interpretive researcher is interested 'in understanding the meaning behind something' (Habermas, 1972).

The British Design Council has developed a design framework called Double Diamond, which suggests that the design process should have four stages.



British Design Council - Double Diamond

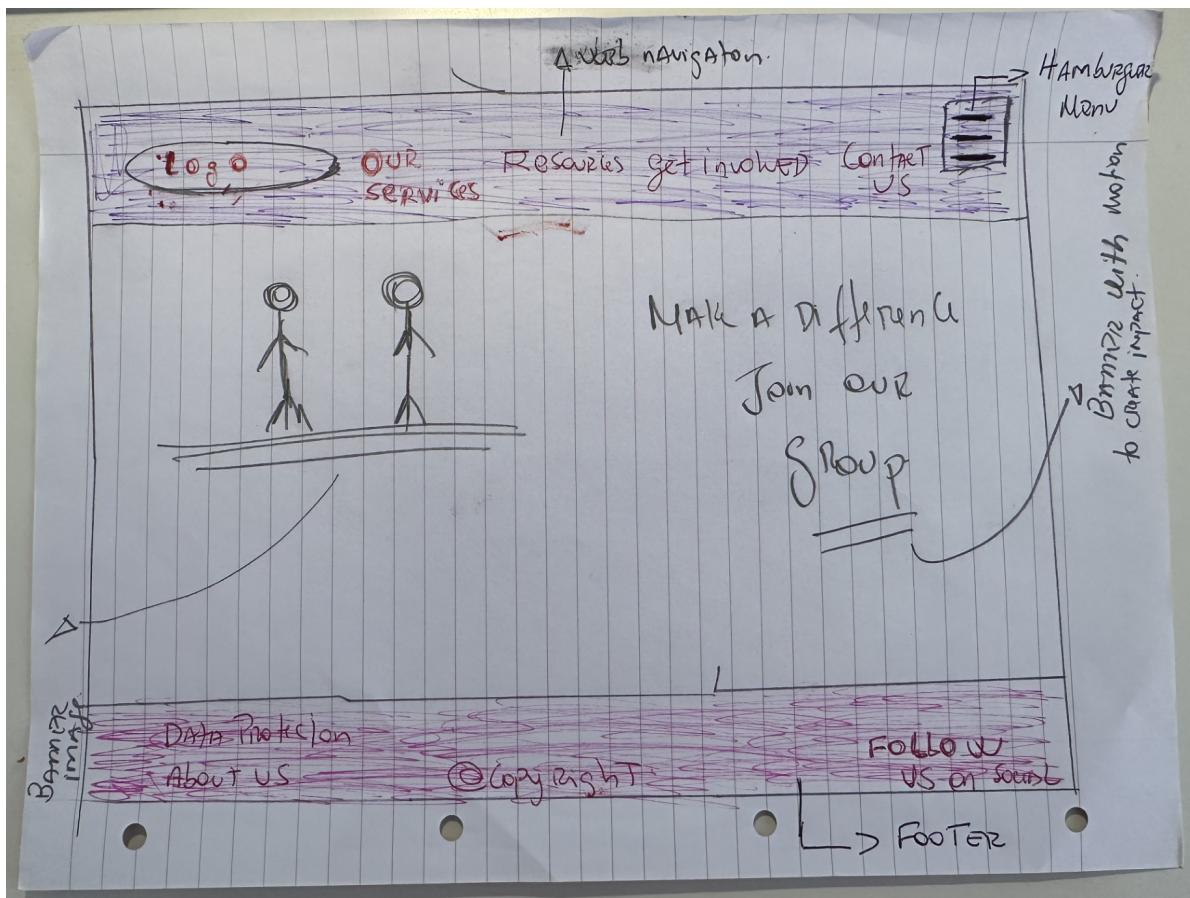
The first stage is Discover, leading the designer to understand the problem rather than guessing it. In the case of this research, this is represented by understanding the needs of those looking to challenge their issues by doing physical exercises and training.

In the second stage, Define: the insights gathered from the discovery phase can help define the problem. Concerning this study, the secondary data was collected through exploratory and secondary research.

The third stage, Develop: different answers lead to seeking inspiration for the design. Preece et al. (2015) suggest that during this stage, Develop is where the 'design, prototyping and construction' is created. In addition, interaction design and the final product come alive through 'repeated design-evaluation-redesign cycles involving prototypes' (Preece et al., 2015, pg421).

The fourth and final stage is called Deliver, which involves testing proposed solutions and eliminating those that do not work.

1. Home page



The image shows the homepage of the 'Your Mind and Soul' website. At the top left is a logo consisting of a stylized blue and white circular design. Below it, the text 'Your Mind and Soul' is written in a smaller, sans-serif font. To the right of the logo are four navigation links: 'Our services', 'Resources', 'Get involved', and 'Contact us'. Further to the right is a icon of three horizontal lines. The main background image is a photograph of a person standing on a beach at sunset, with their arms outstretched. The sky is filled with warm, colorful clouds. Overlaid on the left side are two yellow rounded rectangular buttons: the top one contains the text 'DISCOVER YOUR SOUL' and the bottom one contains 'START YOUR JOURNEY'. On the right side, large white text reads 'Enjoy something different. Join our group'. At the bottom of the page, there is a dark blue footer bar. On the left of this bar are links for 'About us' and 'Data protection'. In the center, the copyright notice '© Your Mind and Soul - All rights reserved' is displayed. On the right, the text 'Follow us' is followed by icons for Facebook and Instagram.

Your Mind and Soul

Our services Resources Get involved Contact us

DISCOVER YOUR SOUL

START YOUR JOURNEY

Enjoy something different.
Join our group

About us
Data protection

© Your Mind and Soul - All rights reserved

Follow us

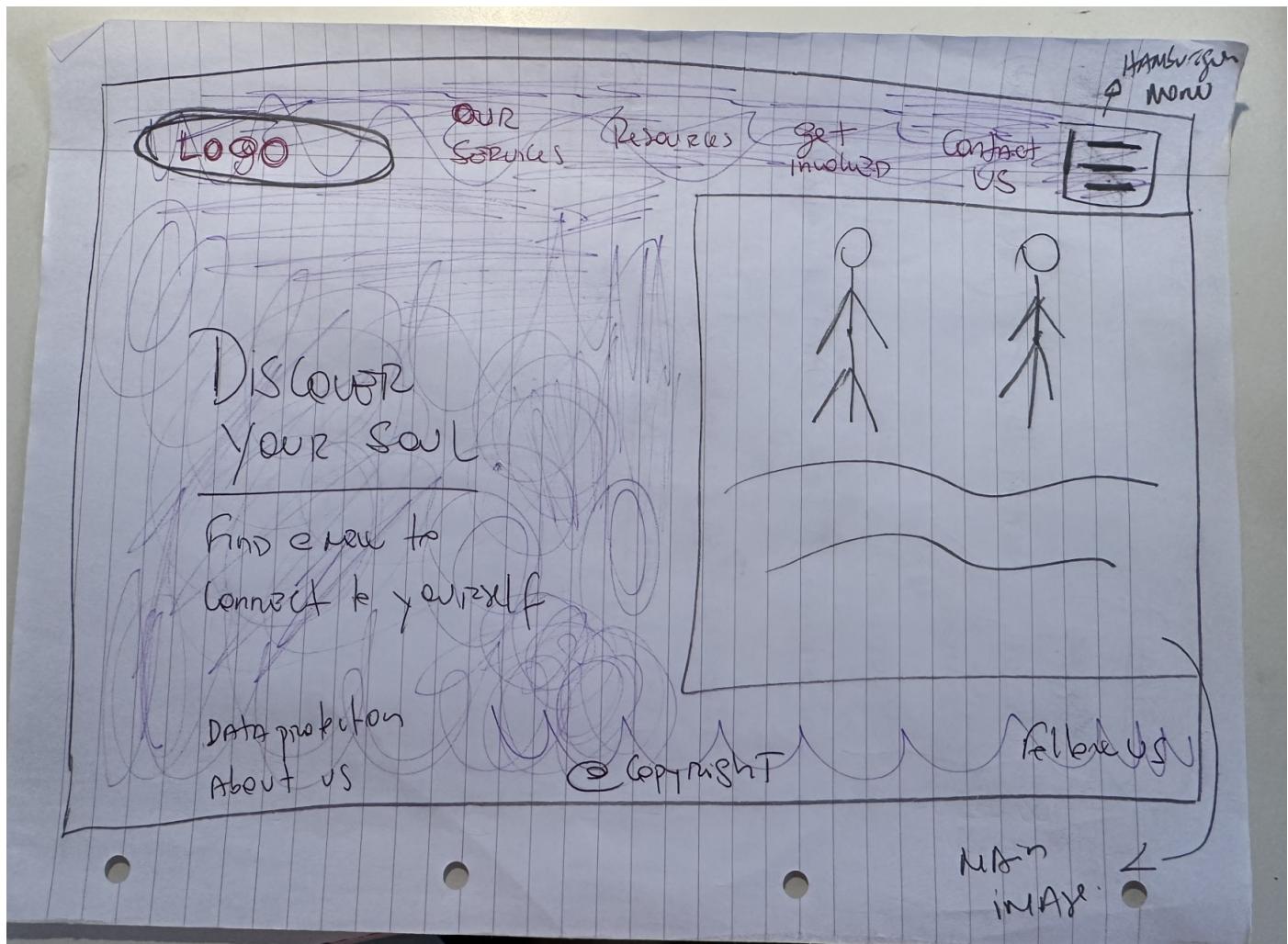
f i

The design above illustrates the homepage for the Your Mind and Soul website. With clear call-to-action buttons, the users are invited to start their journey with the program and discover their souls.

The message is plain, direct and uncomplicated. It is a simple design that uses attractive imagery, H1, for the main message on the right-hand side. The colours chosen, purple for the navigation tab and dark blue for the footer, harmoniously integrate into the design and complement each other.

The font family is Ubuntu, which has been used throughout this project.

2. Home page - second version





Your Mind and Soul

Our services

Resources

Get involved

Contact us



Discover your soul

Find a new way to
connect to yourself

[START YOUR JOURNEY](#)



[About us](#)

[Data protection](#)

©Your Mind and Soul - All rights reserved

Follow us

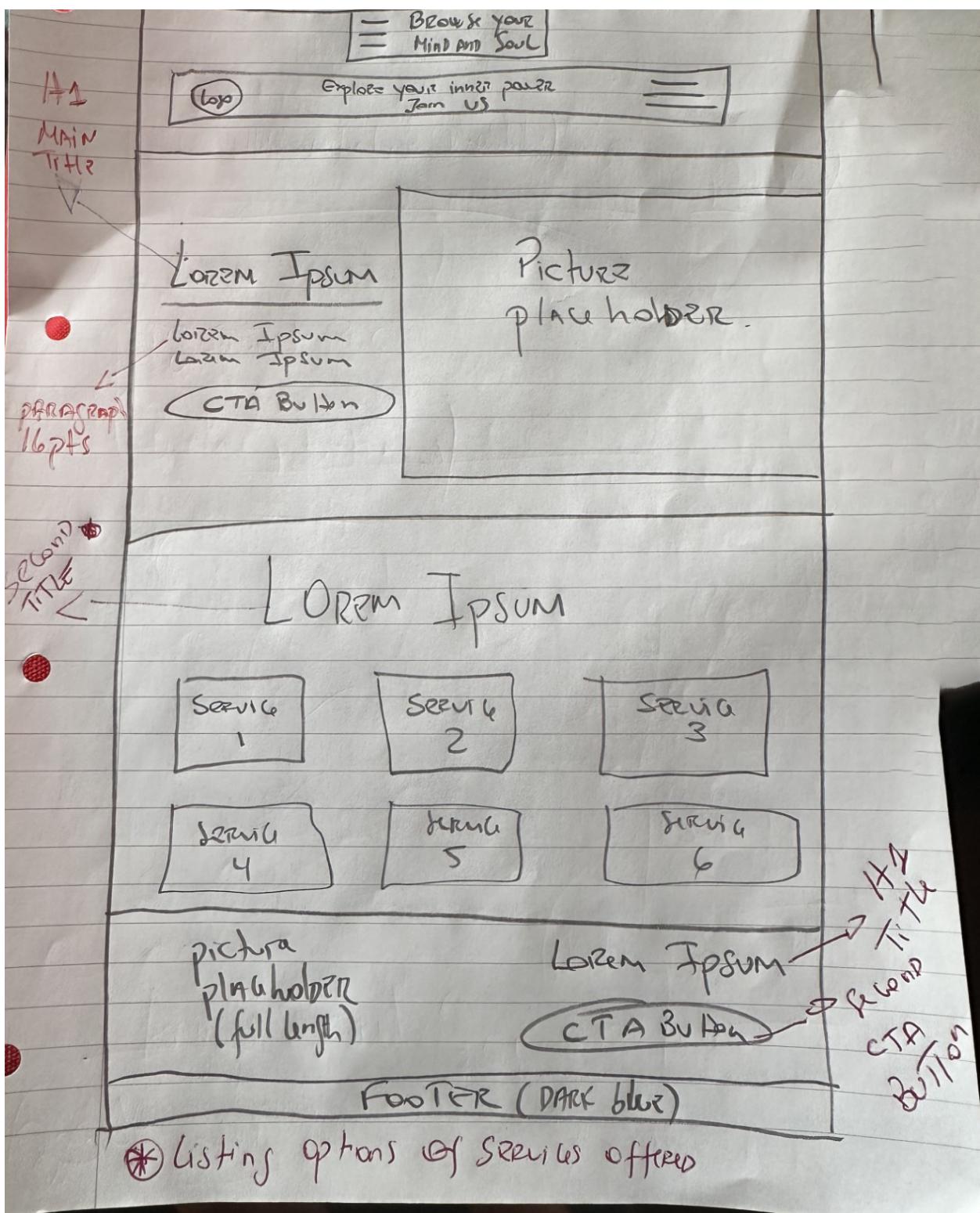


In the second home page version, the design has only one call to action, narrowing the expected response from the users.

The message is more direct and straight to the point. It is also a simple design that uses the same attractive imagery, H1, for the main message on the right-hand side. The colours chosen are dark blue for the whole page, harmoniously integrated into the design and embracing the look and feel of the main header image.

The font family is Ubuntu, which has been used throughout this project.

3. Home page - third version



BROWSE YOUR
MIND AND SOUL

Explore your inner power.
Join us



Discover
your soul

Find a new way to connect to yourself

START YOUR JOURNEY

We're here to help, every step of the way

Assessment and screening

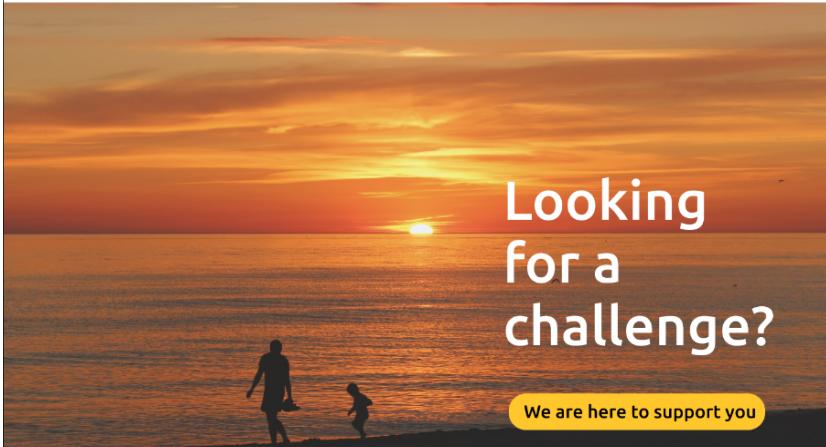
Training

Make your own plan

Resources

challenge yourself

win your reward



Looking
for a
challenge?

We are here to support you

About us
Data protection

Your Mind and Soul - All rights reserved

Follow us

f i

In the third home page version, the design offers more opportunities for the user to engage with the website, aiming to broaden the experience by offering different options for the users to start their journey.

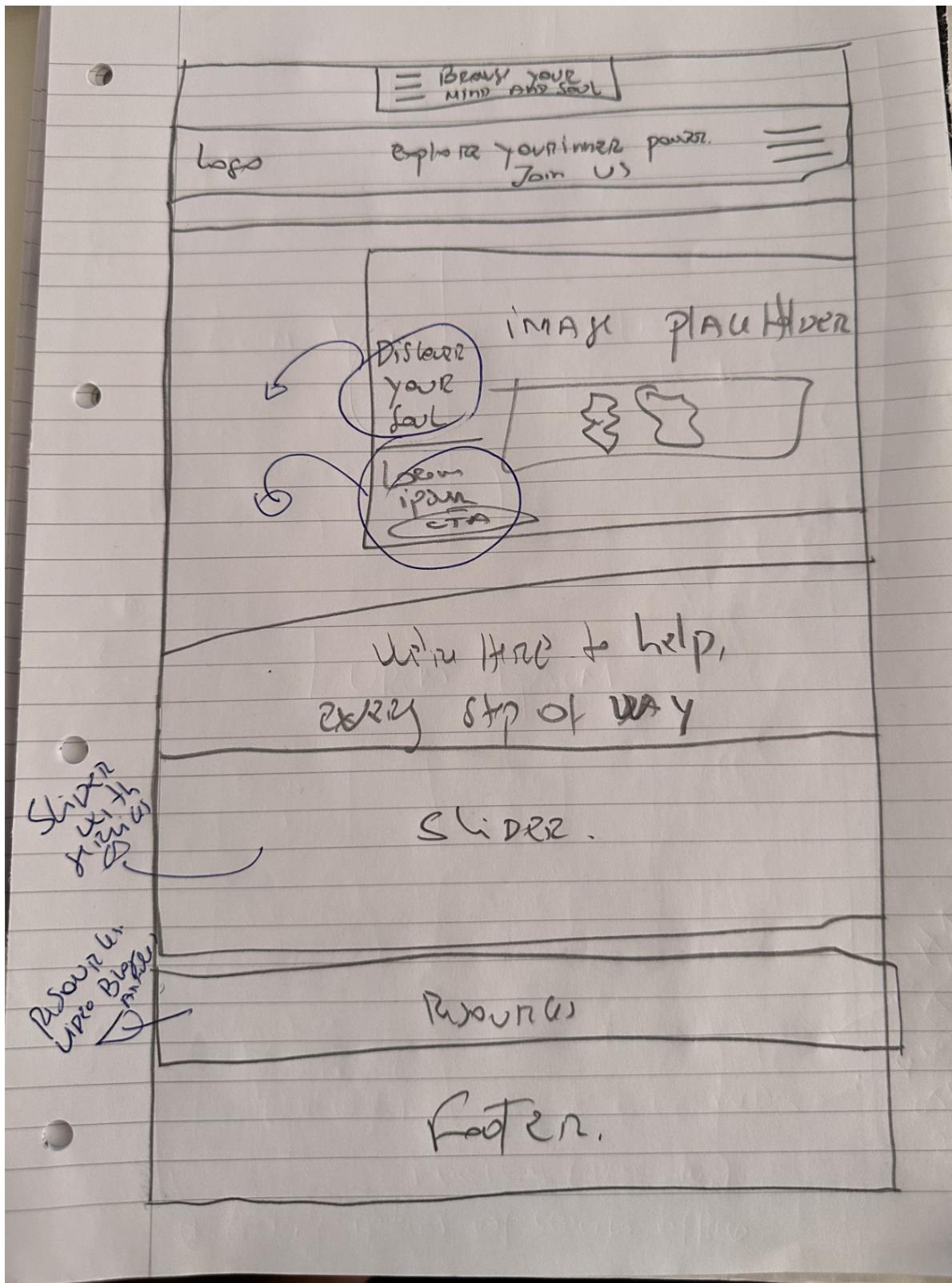
Right at the top of the webpage is a hamburger menu that allows users to explore the website, navigating through the subpages.

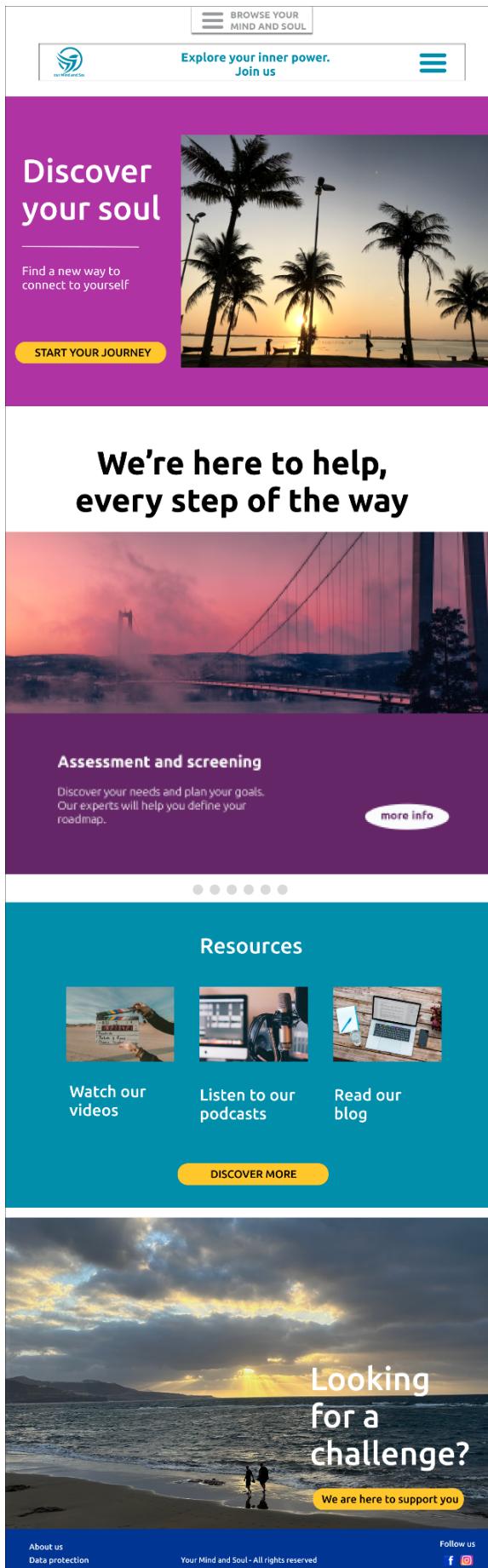
The main message above the fold is direct and straight to the point, 'Start your journey'. It is also a striking design that uses the same attractive imagery, H1, for the main message on the right-hand side. The colours chosen are teal and dark blue, harmoniously integrating into the design and embracing the look and feel of the main header image and the image at the bottom of the webpage.

In addition, this webpage lists the six primary services offered by the program. The six blocks are hyperlinked and interactive, taking the user to the dedicated subpages for each service.

The font family is Ubuntu, which has been used throughout this project.

4. Home page - fourth version with slider/carousel





This concept has two different elements added to it. There is a services slider/carousel where the users can slide through the services and try the six different options for their programs. For better experience try seeing this project on [Figma.com](#)

Also, resources components was added to this design, offering the user the option to read the blog, watch videos or listen to podcasts.

The colour scheme follows the colours available on the aolour palette, with pink as the main first colour, adding some electric feeling, further down is the slider with purple being the colour of the first slide. Resources is in cyan and footer remains in dark blue.

The font family is Ubuntu, which has been used throughout this project.

BROWSE YOUR
MIND AND SOUL

Explore your inner power.
Join us

START YOUR JOURNEY

Look for a challenge?

We are here to support you

About us
Data protection

Your Mind and Soul - All rights reserved

Follow us

5. Subpages

The concept of the subpages follows the design of the main landing page gourth version with a slider/carousel.

The header banner containing a page title on the left hand-side and a call-to-action button just bellow it.

Below the header banner is where the main content is displayed.

Followed by the 'Looking for a challenge?' banner and the footer at the bottom.

Limitations

The main limitations of this research, taking into consideration the knowledge acquired throughout the process, was the lack of primary data.

Therefore, in order to improve and further understand the problem in the Discover phase, as suggested by the British Design Council, it must involve speaking to and spending time with the users affected by the issue.

Benyon (2019) argues that UX design should 'put people first, it should be human-centered' (Benyon, 2019, pg 25). He suggests a guide for UX designers called PACT, which is People, represented by personas (profiles of potential users), Activities and Contexts are to be 'envisioned through scenarios of use', and Technology, which represents the different technologies that will function as a way to deliver the expected user experience (Benyon, 2019, pg48).

Finally, this research concludes that for future reference, it would have gathered more in-depth knowledge if this research had considered the collection of primary data through questionnaires and focus groups.

Bibliography

- Albers, J. (1963). *Interaction of Colour*. London: Yale University Press.
- Acerbi, A. (2016). "A Cultural Evolution Approach to Digital Media." *Frontiers in Human Neuroscience*, vol. 10, 2016, p. 223408, <https://doi.org/10.3389/fnhum.2016.00636> Accessed 1 Jul. 2023.
- Akram, W. & Kumar, R. (2017). "A study on positive and negative effects of social media on society." *International Journal of Computer Sciences and Engineering* 5.10 2017: p. 35–354.
- Amic, G., Ho. "Recognising the Importance of Visual Elements in Experience Design for Motivation." 2016 :127-133. doi: [10.17210/HCIK.2016.01.127](https://doi.org/10.17210/HCIK.2016.01.127).
- Bateman, J. A. (2021). What are digital media? *Discourse, Context & Media*, 41, 100502. <https://doi.org/10.1016/j.dcm.2021.100502>
- Bauman, Z. (2013). *Liquid Modernity*. Oxford, United Kingdom: John Wiley & Sons.
- Benyon, D. (2019) *Designing User Experience: A Guide to HCI, UX and Interaction Design*, Pearson Education Limited
- Bohren, C. F. and Clothiaux, E. E. (2006). *Fundamentals of Atmospheric Radiation: An Introduction with 400 Problems*. Wiley-VCH Verlag GmbH & Co. KGaA.
- Boss, S., and Teague, J. C. (2016). *The New Web Typography*. 1st ed. CRC Press.
- Cao, J. (2015). *The 5 Pillars of interaction design*. Available at <https://thenextweb.com/news/the-5-pillars-of-interaction-design> Accessed on 5 June 2023
- Choi, J., & Kim, S. (2016). "Is the Smartwatch an IT Product or a Fashion Product? A Study on Factors Affecting the Intention to Use Smartwatches". *Computers in Human Behavior*, 63, 777-786.
- Churchill, E. F.. (2018). "Putting Accessibility First". *Interactions Volume 25 Issue 5*. Available at <https://dl.acm.org/doi/10.1145/3264583>
- Colour Meaning - <https://www.color-meanings.com/>
- Colour Scheme - <https://www.colorhexa.com/>

Cooper, A., Reimann, R., & Cronin, D. (2007). *About Face 3: The Essentials of Interaction Design*. Indianapolis: Wiley Publishing.

Das, A. (2020). "Impact of digital media on society". *International Journal of Creative Research Thoughts* Introduction. Volume 8, Issue 5, May 2020.

Dascal, M. (2006). "Digital Culture: Pragmatic and Philosophical Challenges". *Diogenes*, 53(3), 23–39. <https://doi.org/10.1177/0392192106068999>

Dewdney, A. & Ride, P. (2014). *The Digital Media Handbook*. 2nd Edition Routledge.

Disability -

<https://www.statista.com/statistics/449279/disability-prevalence-impairment-united-kingdom-uk/>

Dourish, P. (2006). [Re-Space-ing Place: "Place" and "Space" Ten years ago](#). In Proceedings of the 2006 20th anniversary conference on Computer supported cooperative work (CSCW '06). DOI:<https://doi-org.ezproxy.lib.bbk.ac.uk/10.1145/1180875.1180921>

E. Schoenherr, Steven (5 May 2004). "[The Digital Revolution](#)". Archived from the original on 7 October 2008.

Edjudo (2016) *Web 2.0 Teaching Tools to Enhance Education and Learning*. Available at: <http://edjudo.com/web-2-0-teaching-tools-links> (accessed 4 January 2023).

Edwards, B. (2004). *Colour - A Course in Mastering the Art of Mixing Colors*. Penguin Group (USA) Inc. New York.

Feldman T. (1997). *An Introduction to Digital Media*. 1st Edition Routledge.

Foley, A. (2011). "Exploring the Design, Development and Use of Websites Through Accessibility and Usability Studies". *Journal of Educational Multimedia and Hypermedia*, 20(4), 361–385. Waynesville, NC USA: Association for the Advancement of Computing in Education (AACE). Retrieved September 25, 2022, from <https://www.learntechlib.org/primary/p/37621/>.

Fox, J. (2022). *The World According to Color: A Cultural History*. St. Martin's Press.

Gould, J. D., & Lewis, C. (1985). Designing for Usability: Key Principles and What Designers Think. *Communications of the ACM*, 28(3), 300–311. <https://doi.org/10.1145/3166.3170>.

Gray, D. E. (2014). *Doing research in the real world*. London: Sage Publications

Gupta, S. (2022). The Impact of Digital Media – The Society, Future, and Our Lifestyle. Available at <https://www.incrementors.com/blog/impact-of-digital-media/> Accessed on 20 May 2023.

Gupta, S. (2020). "Universal Design vs Inclusive Design: How Do UX Design Fundamentals Differ?". In *Springboard* Available on <https://www.springboard.com/blog/design/universal-vs-inclusive-design/#:~:text=Universal%20design%20might%20force%20UX,people%20with%20unique%20circumstances>. Accessed on 10 May 2023.

Habermas, J. (1972) *Knowledge and Human Interests*. London: Heinemann

Hackley, C. (2003) *Doing Research Projects in Marketing Management and Consumer Research*. 1st Edition, Routledge

Hartono, E. and Holsapple, C. W.. (2019). "Website Visual Design Qualities: A Threefold Framework". *ACM Transactions on Management Information Systems* Volume 10 Issue 1.

Hassenzahl, M. et al. (2013). "Designing Moments of Meaning and Pleasure. Experience Design and Happiness". *International Journal of Design* [Online] Available at <http://www.ijdesign.org/index.php/IJDesign/article/view/1480/589> Accessed on 5 May 2022

Heinonen, K. and Medberg, G. (2018). "Netnography as a tool for understanding customers: implications for service research and practice". *Journal of Services Marketing*, Volume 32 No. 6, pp 657-679

Finnemann, N. (2011). Mediatisation theory and digital media. , 36(1), 67-89. <https://doi.org/10.1515/comm.2011.004>

Inclusive Design (2023). <https://inclusive.microsoft.design/>

Itten, J. (1965) *Art de la Couleur*. Edition Abrege.

Jacko, J.A. (2012). *Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies, and Emerging Applications*, (3rd ed.). CRC Press.

Joyce, A. (2022). "[Inclusive Design](#)". In *Nielsen Norman Group*. Accessed on 27 May 2023.

Kozinets, R. W. (2006). Click to connect: Netnography and tribal advertising. *Journal of Advertising Research*. Volume 46 Issue 3, pp 279-288

Kozinets, R. W. et al. (2014). "Netnographic Analysis: Understanding Culture through Social Media Data", edited by Uwe Flick in *Handbook of Qualitative Data Analysis*. Sage: London, pg 262-275

- Kozinets, R. W. (2015). *Netnography: Redefined* 2nd edition. Los Angeles: SAGE
- Leeuwen, T. M. "Towards a semiotics of typography." *Information Design Journal* 14 2006: 139-155.
- Lindgren, S. (2017) *Digital Media & Society*. Sage Publications Ltd.
- Lupton, E. & Phillips, J. C. (2015). "Color" in *Graphic Design: The New Basics, Revised and Updated* p.80–97. Princeton Architectural Press.
- Malhotra et al. (2017). *Marketing Research: An applied approach*. 5th European Edition, Harlow, UK. Pearson Education
- Mankoff, J., Fait, H., and Tran, T. (2005). "Is Your Web Page Accessible? A Comparative Study of Methods for Assessing Web Page Accessibility for the Blind". In *Proceedings of CHI 2003*. ACM, New York, NY, pp. 41–50.
- MDN Web Docs - *Accessibility* - Available at
<https://developer.mozilla.org/en-US/docs/Web/Accessibility>
- MDN Web Docs - *What is Accessibility* - Available at
https://developer.mozilla.org/en-US/docs/Learn/Accessibility/What_is_accessibility
- National Center for Health Statistics, "[National health interview survey - disability supplement](#)," 1994 and 1995.
- Nielsen, J. (1994). *Usability Engineering*. Morgan Kaufmann, San Francisco.
- Nielsen Norman Group - Available at <https://www.nngroup.com/>
- Nielsen Norman Group - *Usability 101: Introduction to Usability* -Available at
<https://www.nngroup.com/articles/usability-101-introduction-to-usability/>
- Noble, C. H., & Kumar, M. (2010). "Exploring the Appeal of Product Design: A Grounded, Value-Based Model of Key Design Elements and Relationships". *Journal of Product Innovation Management*, 27(5), 640–657. <https://doi.org/10.1111/j.1540-5885.2010.00742.x>
- Norman D. A. (2004). *Emotional Design: Why We Love (or Hate) Everyday Things*. New York: Basic Books.
- O'Donoghue, T. (2007). *Planning your qualitative research project: An introduction to interpretivist research in education*. London: Routledge.

O'Reilly, T. (2007). What is Web 2.0: Design Patterns and Business Models for the Next Generation of Software? *Communications & Strategies*, Volume 1, pp 17

Oxford Dictionary - <https://www.oed.com/>

Pantone website: [What is Colour?](#) Accessed on 20 April 2023.

Persson, H., Åhman, H., Yngling, A.A. and Gulliksen, J. (2015). "Universal design, inclusive design, accessible design, design for all: different concepts—one goal? On the concept of accessibility—historical, methodological and philosophical aspects". *Universal Access in the Information Society*, vol. 14, p. 505–526. <https://doi.org/10.1007/s10209-014-0358-z>

Peters, M. (2018). *The history of storytelling in 10 minutes*. Available at <https://bit.ly/2D4ZxtK> Accessed on 15 September 2022.

Peters, D. et al. "Designing for Motivation, Engagement and Wellbeing in Digital Experience." *Frontiers in Psychology*, vol. 9, 2018, p. 300159, <https://doi.org/10.3389/fpsyg.2018.00797> Accessed 1 Jul. 2023.

Preece, J., Sharp, H., & Rogers, Y. (2015). *Interaction Design: Beyond Human-Computer Interaction*, John Wiley & Sons Ltd, Chichester, UK

Reichenstein, O. (2011) *Web Design is 95% Typography*. Available at <https://ia.net/> Accessed on 11 October 2022.

Reyna, J., Hanham, J., & Meier, P. (2018). "The Internet Explosion, Digital Media Principles And Implications To Communicate Effectively In The Digital Space". *E-Learning and Digital Media*, 15(1), 36–52. <https://doi.org/10.1177/2042753018754361>

Rutter, R. (2017). *Web Typography: A Handbook for Designing Beautiful and Effective Responsive Typography*. Ampersand Type.

Selwyn, N. (2015). "Minding Our Language: Why Education And Technology is Full Of Bullshit... And What Might Be Done About It". *Learning, Media and Technology* 41(3): 437–443. Available at <https://www.tandfonline.com/doi/full/10.1080/17439884.2015.1012523>

Shao, G. (2009). "Understanding the appeal of user-generated media: A uses and gratification perspective". *Internet Research* 19: pp. 7–25. Available at <https://www.emerald.com/insight/content/doi/10.1108/10662240910927795/full/html>

Schwandt, T. A. (1994). Constructivist, interpretivist approaches to human inquiry, in *Handbook of qualitative research*. N.K. Denzin & Y.S. Lincoln, Thousand Oaks, Sage Publications available at <http://www.uky.edu/~addesa01/documents/Schwandt.pdf> Accessed on 26 April 2023

Sidhu, I. (2015). *The Digital Revolution: How Connected Digital Innovations Are Transforming Your Industry, Company & Career*. United Kingdom: Pearson Education.

Sharp, H., Rogers, Y., & Preece, J. (2019). *Interaction design: Beyond human-computer interaction*. 5th Edition. Publisher: John Wiley & Sons, Inc

Smith, R. (2013). What is Digital Media? *The Centre for Digital Media*. Available at <https://thecdm.ca/program/mdm/digital-media> Accessed on 20 September 2022

Spiekermann, E. & Ginger, E. M. (2003). *Stop Stealing Sheep & Find Out How Type Works*. Adobe Press

Strickland, J. (2007). *How Web 2.0 Works*. HowStuffWorks.com.

<http://computer.howstuffworks.com/web-20.htm> Accessed on 20 July 2022

Sullivan, T. and Matson, R., (2000). "Barriers to use: Usability and content accessibility on the web's most popular sites," In Proc. of CUU'00, pp. 139–144, ACM Press, 2000.

Swan, H.; Pouncey, I.; Pickering, H. and Watson, L. *Inclusive Design Principles*. Available at <https://inclusivedesignprinciples.org/> Accessed on 5 February 2021.

The British Design Council - *The Double Diamond: A universally accepted depiction of the design process*. Available at

<https://www.designcouncil.org.uk/our-work/news-opinion/double-diamond-universally-accepted-depiction-design-process/> Accessed on 14 April 2023

Thompson, J. B. (2021). *Book Wars: The Digital Revolution in Publishing*. United Kingdom: Polity Press.

Unger, R. & Chandler, C. (2012) *A Project Guide to UX Design*. 2nd ed. San Francisco: New Riders.

Uzelac, A. (2008). "How to understand digital culture: Digital culture-a resource for a knowledge society". *Digital Culture: The Changing Dynamics*. Zagreb: Institute for International Relations. Pg 7–21.

Van Dijck, J. (2009). "Users like you? Theorising Agency in User-generated Content". "Media, Culture, and Society" 31(1), 41–58. Available at

<https://journals.sagepub.com/doi/10.1177/0163443708098245>

Walia, N. (2016) 5 Pillars of Interaction Design(IxD) Every Designer Must Know About... A Very Big UX Factor... Available at

<https://medium.com/strategic-designs/5-pillars-of-interaction-design-ixd-every-designer-must-know-about-a-very-big-ux-factor-5350e1706b0> Accessed on 05 June 2023

Waller, S., Bradley, M., Hosking, I., & Clarkson, P. J. (2015). "Making the case for inclusive design". *Applied Ergonomics*, pp. 46, 297–303. <https://doi.org/10.1016/j.apergo.2013.03.012>

Warde, B., (1956). *The Crystal Goblet; Sixteen Essays on Typography*. Cleveland: World Pub. Co.

Watzman, S. (2003)."Visual Design Principles For Usable Interfaces". *The human-computer interaction handbook: Fundamentals, evolving technologies and emerging applications* (2003): 263–285.

Wells, J. M. & Preece, W. E. (2020). "Typography". *Encyclopedia Britannica*, <https://www.britannica.com/technology/typography> Accessed 13 September 2022.