Emotional intelligence in graphic design: Creating a resource to facilitate empathic practices

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Emotional intelligence in graphic design: Creating a resource to facilitate empathic practices

by

Luisa M Burgos-Barrera

A thesis submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

MASTER OF FINE ARTS

Major: Graphic Design

Program of Study Committee:
Andrea L. Quam, Major Professor
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Anson B. Call

The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content of this thesis. The Graduate College will ensure this thesis is globally accessible and will not permit alterations after a degree is conferred.

Iowa State University
Ames, Iowa

2020

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All of nature, in its awful vastness and incomprehensible complexity, is in the end interrelated—worlds within worlds within worlds: the seen and the unseen—the physical and the immaterial are all connected—each exerting influence on the next—bound, as it were, by chains of analogy—magnetic chains. Every decision, every action mirrors, ripples, reflects and echoes throughout the whole of creation. The world is indeed bound with secret knots.

— Athanasius Kircher

About four hundred years ago, Kircher wrote these words referring to magnetism, a hidden force he was fascinated with and which, he believed, moved the world. I borrow them today to thank the Universe, or God, or the magnetic chains, whoever—if anyone—bound the secret knots that brought me to where I am today. Along the way, I have had the fortune of meeting people who have made of this journey a wonderful experience. I want to express my immense appreciation to my major professor, Andrea Quam, for her infinite wisdom, kindness, guidance, patience, and support during this process; thank you for believing in me at times I did not. To my committee members, thank you for your flexibility during these uncertain times. Thank you, Tejas Dhadphale, for all your support and for not ceasing to illuminate me with your sharp observations. And Thank you, Anson Call, for your leap of faith in this process and for bringing the most interesting questions along the way. ¡Gracias!

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For more secret knots to come...
ABSTRACT

Beyond products, the design discipline is now focused on creating services and experiences for highly diverse groups of people. Current and commonly used design approaches, like Design Thinking and Human-Centered Design, have empathy as a key component in their design processes. However, empathy is too often treated as an assumed trait of designers, one that has matured at the same pace as other skills. How are designers prepared to empathize with the people for who they work and design? The intent of this thesis is to better understand the importance of helping beginner and established graphic designers to engage in empathic practices before they are asked to empathize with users and clients. Some examples of empathic designs are analyzed, as well as existing design resources aiming to elicit empathic behavior. These referents inform the proposal of a digital tool that designers can use to explore their emotional intelligence, as it presents an important entry point to empathy that other resources have often overlooked.
CHAPTER 1. INTRODUCTION

The term design serves as an umbrella for a wide variety of disciplines with shared values. Graphic design, compared to some of its close relatives, like architecture, is a young discipline, but, within the realms of communication, its origins can be traced to the invention of writing. The history of graphic design has been characterized by the elasticity of its boundaries, as its influences have come from diverse fields and major art movements. Furthermore, graphic design has been closely linked to the social, economic, and political lives of Western culture, which have been by no means static. Through the decades, the discipline has oscillated between paradigms of function and form, objectivity and subjectivity, anonymity and authorship, to mention a few. Delving into how this fluctuation has shaped the field is vital to understand the role that emotions and empathy have come to play in graphic design.

The Bauhaus—which means “house of construction”—was one of the most influential movements that graphic design has encountered. The Bauhaus art school, founded in Germany at the end of World War I, set to eliminate the distinction between the fine and applied arts (Santoro, 2014). Its concerns evolved from the medieval and the handcrafted to the rational and the orderly (Meggs, P., Purvis A., 2016), remaining principles from the industrial revolution. After World War II, techniques derived from modern art, such as visual puns and collage, permeated graphic design work. During the 1950s and 1960s, graphic designers found a new role in the boom of advertising, corporate images, and magazines.

The almost scientific objectivity of Swiss design helped position graphic design as a valuable professional practice in the United States (Armstrong, 2009). Nonetheless, there was still a deliberate emotional distance between the individual designers and their projects. They
were anonymous in their design work, as subjectivity—they believed—would interfere with true neutral communication. “To describe a problem,” wrote the Swiss designer Karl Gerstner, “is part of the solution. This implies not to make creative decisions as prompted by feeling but by intellectual criteria” (Gerstner, 1964). In the late 1960s, postmodernism rose as a reaction to the clean and modern aesthetics of corporate images, objectivity receding and subjectivity making its presence. Designers such as Wolfgang Weingart and Katherine McCoy welcomed intuition, emotion, self-expression, and multiplicity of meaning in their design process. By doing so, they were laying the grounds for other designers to incorporate their own voices and agency in their practice. In the 1990s and 2000s, a refreshed sense of social responsibility, along with a newly found self-awareness, led designers to reengage society critically. Graphic designers joined media activists to express their animosity towards consumer culture and the advertising industry’s dominance over the design profession (Armstrong, 2009). As a result, designers were increasingly aware of the global impact of their works, both inside and outside of their client–designer relationships.

The focus in design has shifted from targeting people as passive consumers to building a stronger connection amongst designers, clients, and target audiences. This connection has helped to humanize demographics, situating people’s needs at the front of the designers’ work. In the words of Victor Papanek, this means designers have a new role, “no longer as tools in the hands of industry, but as advocates for users” (Papanek, 2006). As the different design disciplines turn their focus to provide unique, meaningful experiences to diverse audiences, designers have partnered with other disciplines to bring diverse skills and points of view to the design process. Furthermore, these teams are working closely with their intended audiences,
not only to better understand their needs and values, but also to cocreate the products and services they will use. For current design approaches, people are at the core of the design process, making empathy a fundamental skill that designers must have in their repertoire (Battarbee et al., 2014).

This thesis will explore different components of empathic behavior and focus on emotional intelligence as a key entry point to empathy in design. If graphic designers are to be advocates for users and create meaningful experiences for them, what ensures that designers are able to do so? Are beginner and established graphic designers empathic simply because of the nature of their trade? Is empathy inherent to design education and practice? This thesis is an effort to address these questions through a digital resource that introduces aspiring and working designers to emotional intelligence, with the goal of fostering more empathic encounters with others.
CHAPTER 2. LITERATURE REVIEW

2.1 The Origins of Design Thinking: Towards an empathic practice of design

Design methods for problem-solving, almost like design products, have evolved from being deliberately rational, to accommodate to a wider range and complexity of issues. As early as in the 1960s, scholars were questioning what the subject matter of design was, and what the appropriate methods to address it were. The cognitive scientist Herbert Simon, whose ideas contributed to current design practices, such as rapid prototyping and testing through observation, noted that the natural sciences were mainly concerned with the way things are, while design’s concerns aligned with how things could be (Simon, 1969). This suggested that the scientific methods used for problem solving, even with their long trajectory and validity, were not a perfect fit to the design disciplines. Around the same time, the theorist Horst Rittel coined the term *wicked problems*, referring to the essence of the problems that designers addressed through their practice. According to Rittel, the wickedness in design problems lies in their ill-formulated nature, the conflicting values of the involved decision makers, the ambiguity in the information available, and the impossibility to arrive at one single best solution (Buchanan, 1992). Design researchers and educators such as Bruce Archer and Nigel Cross have agreed that there are “designerly” ways of knowing, communicating, and thinking (Archer, 1979; Cross, 1982). Moreover, the indeterminacy of wicked problems in design suggests a potential universality in design’s subject-matter, given that design thinking could be applied to any area of the human experience. However, in its practice, design is fundamentally concerned with the particular, and deals with issues around specific circumstances (Buchanan, 1992).
Consequently, it has been the designer’s job to define the variables around ill-defined matters and arrive at fitting solutions through their “designerly” ways of thinking.

Today, the term design thinking is generally used to describe the way designers, regardless of their specific discipline, address a problem. This process can be broken down into a series of steps as follows: problem definition, idea generation, refinement, evaluation and selection of the best idea, and experimentation & evolution. This is an iterative process, which means that it is rarely linear and sometimes it is necessary to go back to earlier steps to reframe the approach to the problem that is being addressed. The design agency IDEO and the design branch at Stanford University—called d.School— are frequently associated with the design thinking methodology, as they are two of the most visible proponents of this creative process method through books, websites, online courses, and tools. Many people even think of IDEO specifically as the creator of design thinking, but as we have seen, the term has been here longer than most of us have. Its focus is what has changed, and currently, final users are at its core. This is referred to as human-centered design, or the process of ensuring that people’s needs are met, that the final product is understandable and usable, that it accomplishes the desired tasks, and that the experiences of use are positive (Norman, 2013).

As contemporary practice in design evolves, there is a greater expectation for design to provide more customized, meaningful experiences for people. Diverse users have different needs, and one size does not fit all. Human centered design and design thinking are premised on a deep understanding of an audience and their needs. Therefore, these methodologies are, too, premised on empathy, and while its most iconic proponents have developed field guides with tools and resources for designers to interact and empathize with users, these resources do
not provide tools or suggestions on how designers, as individuals, might cultivate their own empathy before interacting with others. To make the most out of these existing tools, and more importantly, to better address and connect to people’s needs, designers should be introduced to empathy from scratch.

2.2 Emotional learning: Teaching and learning emotions when you are not a designer

“Anybody can become angry – that is easy, but to be angry with the right person and to the right degree and at the right time and for the right purpose, and in the right way – that is not within everybody’s power and is not easy.”

—Aristotle

Alain de Botton, a philosopher whose work delves into various contemporary subjects and themes, emphasizing philosophy's relevance to everyday life, highlights the selectiveness of western education on what is or is not possible to educate ourselves in (The School of Life, 2019). Efforts have been notoriously directed toward the teaching and learning of scientific or technological subjects, leaving the psychological and emotional subjects unattended. (McWhirther, 2008; de Waal, 2009; The School of Life, 2019).

Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. (Casel, 2020). Some school programs in the United States have seen the need to incorporate Social Emotional Learning (SEL) into their curricula, specifically geared towards middle and high school students. It could be argued that most of a person’s emotional learning happens in their childhood and
adolescence, but in fact there is not a stopping age to acquiring SEL skills. Moreover, it is during adulthood when people will face the most challenging social and emotional experiences, and yet, this is the stage of life that SEL resources explore the least. After high school, it is in colleges and universities where students have the greatest opportunity to prepare and learn for the rest of their lives. Some universities have independent services and programs that students can attend, to discuss topics that are relevant to their social, affective lives, yet groups are usually limited and work for specific periods of time. (McWhirther, 2008) The reach would be broader if some of these practices were reinforced from majors’ curricula.

There are, though, some disciplines that have taken a deliberate approach into training their students in SEL, and more specifically, in empathic responses. The medical field has long identified empathy as one of the key attributes that physicians should have to develop a good relationship with their patients. For this reason, some curricula have adapted roleplay activities and drama performances to reinforce empathic practices. In addition, research has shown that even a short training session can help physicians in being mindful about their patient’s mental health as well as their own (Gómez-Díaz et al., 2017). Beginner designers would similarly benefit from alike experiences, just as medical students do.

2.3 What is it we talk about when we talk about empathy?

“Putting oneself into someone else’s shoes” is a widely accepted metaphor for what empathy is, and as such it does not give away much of its meaning. One person’s understanding of the term may be different than that of their neighbor. Writer Leslie Jamison describes empathy as travel, suggesting one enters another person’s pain the same way one would enter another country, through immigration and customs, border crossing by way of query: What
grows where the other person is? What are the laws? What animals graze there? — she wonders (Jamison, 2014).

Even though the concept is relatively young in its intellectual heritage, empathy has not always been associated so directly with pain. As early as in the 18th century, philosophers like David Hume, famous for his dictum “the minds of men are mirrors to one another” (Stueber, 2019), were already trying to understand how one person can resonate with another person’s mind and, somehow, recreate its thoughts and emotions. In the 19th century, mostly positivist and empiricist philosophers thought it was empathy that allowed people to appreciate objects in nature in an aesthetic manner. For them, sensory information was a fundamental part of a person’s exploration of the world. The work of the German philosopher Theodor Lipps would greatly influence future approaches to empathy. He believed that “empathic” encounters with objects in nature triggered inner processes in a person, which at the same time elicited similar experiences to the ones a person had when engaged in activities that involved physical movement. To experience an object meant to project one’s own experiences onto it, as if one were in the object. If the elicited experiences were apprehended in a positive manner, a person would perceive the object as beautiful. If not, the object would be perceived as ugly (Stueber, 2019). Aesthetics and empathy, however, were not limited to objects. In regard to human interactions, Lipps understood empathy as a phenomenon of “inner imitation,” where one mind mirrors the mental activities or experiences of another, based on the observation of the other person’s bodily activities or facial expressions. For Lipps, empathy was based on an innate disposition for motor mimicry and was, ultimately, the primary means for gaining knowledge of other minds.
In the 20th century, the word empathy was finally introduced to English literature by the psychologist Edward Titchner, who paid close attention to Lipps’ work and borrowed the word Einfühlung—a concept from German aesthetics that translates to “feeling into”—to introduce the term in 1909. Before that, sympathy was commonly used as the term to refer to empathy-related phenomena (Stueber, 2019). The difference between these two and its relevance will be discussed later.

In recent years, the term *empathy* has gained popularity amongst diverse fields. According to Google trends, the term appears at least five times as often as it used to in 2004. However, not one universal definition of empathy is true for all areas and disciplines, as even psychologists, like philosophers, have debated over its meanings for decades. Below are three examples from distinct sources:

1. Empathy is generally defined as the ability to feel or relate to what another person is feeling or experiencing without having the feelings, thoughts, and experience fully communicated in an objectively explicit manner (Webster, 2020). This definition is from Merriam-Webster dictionary.

2. Empathy in the broadest sense refers to the reactions of one individual to the observed experiences of another (Davis, 1983). This is the definition by Mark H. Davis, a psychology professor who proposed a method to measure empathy in individuals.

3. Empathy is the active attempt to understand another person’s perspective by imagining how you would feel, think, or act if put in their situation. This definition comes from the *Equity-Centered, Community Design Field Guide*, created by Creative Reaction Lab (Creative
Reaction Lab, 2018). This organization seeks to educate and train black and Latino youth to become leaders.

While Merriam-Webster refers to empathy as one person’s ability to infer information about another person’s feelings, experiences, or thoughts, Davis succinctly explains empathy as a reaction. Finally, for the Creative Reaction Lab, empathy is an action; it is deliberate in imagining another person’s perspective as one’s own. These definitions seem to match the nature of their sources. The dictionary’s definition is the broadest, given that it should encapsulate as many components as it can, to provide the public with a clear and general concept of empathy; Davis’s definition looks at measuring how empathic individuals are, so it makes sense that empathy is seen as the product of an action. And in the final definition shared above, empowering an audience is vital for a socially oriented organization.

The similarities and nuances of the different definitions may be why psychologists endlessly debate. Is empathy a reaction or an ability? Is it triggered to understand a perspective or to relate to another’s feelings or experiences? Does it only happen through imagination? Many authors’ works suggest that it may be all of the above. If the definition of empathy is determined by the context in which it is used, it would be impossible to arrive at one single definition that encompasses all possible scenarios. However, what these authors have in common is their desire to unveil, understand, and value empathy in their respective fields. When considering empathy not as a noun but as a verb (empathize) and, moreover, as an adjective (empathic), these authors are on the same quest; despite the differences in their definitions, they all have an “empathic” approach to their practice. Empathy, then, could be understood in a broader sense as an attitude rather than a concept.
One thing most authors currently agree upon, though, is the distinction of two subcomponents in empathy: cognitive empathy and affective empathy (Davis, 1983). Cognitive empathy refers to the ability to infer what another person is feeling or experiencing, while affective empathy refers to the capacity to vicariously share the emotional state of another person. Cognitive actions include imagining, recognizing, or inferring, while affective actions are more related to feeling or coming to feel emotions (Vignemont & Singer, 2016). These two subcomponents work in tandem and depend on one another to generate what Arnaud Carré, a psychology professor at the Savoie Mont Blanc University, and his colleagues call the empathic response:

The empathic response requires the recognition of one’s own and other people’s emotions. It also requires the ability to share and replicate other people’s emotional states while simultaneously being aware that these emotions are not one’s own (i.e., affective responsiveness). In addition, it demands the ability to adopt another person’s perspective while simultaneously preserving the distinction between self and other (emotional perspective taking). Finally, it requires individuals to choose the best socioemotional response (e.g., by soothing a sad person without being as sad as this person) (Carré et al., 2013, p.680).

In their description there are two elements that are worth highlighting: the clear distinction between the “self” and the “other,” and the recognition of emotional states, both in oneself and in others. While the former disconnects us, the latter brings us together through a shared experience. This distinction has also been determinant to the design practice. The
problems addressed by designers are rarely their own; they are those of particular users, and to
design for their users, designers must empathize with them and understand who they are and
what is important to them (Doorley et al., 2018).

2.4 Contagiousness in Emotions

Emotional contagion is potentially one of the building blocks for empathy and therefore
important for designers to understand. In the replication process of emotional states, one of
the primary roles is played by something called primitive emotional contagion, which broadly
refers to the ability to automatically “catch” a person’s emotional state. Like empathy, the
process for emotional contagion is not easy to break down into distinctive pieces. One could
assume that it is centered exclusively around feelings, but there are in fact more ways in which
individuals vicariously communicate their emotional states to others. Elaine Hatfield, professor
of psychology, and her colleagues define emotional contagion as “the tendency to
automatically mimic and synchronize facial expressions, vocalizations, postures, and
movements with those of another person and, consequently, to converge emotionally”
(Hatfield et al., 1994). The authors also think of emotional contagion as a building block of
human interaction because it helps in “reading other people’s minds” and allows individuals to
understand and share what others are feeling.

Hatfield and her colleagues propose a possible chain mechanism for emotional
contagion, consisting of three steps: mimicry, in which a person unconsciously matches the
subtle corporal, facial, and vocal expressions of those around them; feedback, in which, after
mimicking an expression, their body triggers an emotional reaction that matches that
expression; and contagion, in which, by synchronizing expressions and emotional reactions
moment to moment, the person now fully “catches” the emotions of others. In other words, when in Rome, if someone does do as the Romans do, they will automatically feel as the Romans feel, and most of the time they will not be aware of it.

The idea that body movements or expressions trigger emotions has been explored by other authors. Konstantin Stanislavski, an influential theater practitioner and director, believed that physical expressions and internal states were inextricable. In order to present a sincere, believable character onstage, Stanislavski proposed that actors connect their own lived experiences to the characters’ experiences and, thus, portray emotions more naturally. He argued that past experiences are stored in something he called emotional memory; for actors to relive these memories, they had to execute logical, physical actions in specific situations. He believed that “there are as many different nuances of emotions as there are physical actions” (Moore, 1984). Stanislavski’s method resembles Hatfield’s emotional contagion process theory; however, mimicry is replaced in Stanislavski’s theory by the emotional memory at work.

Under the light of emotional contagion and emotional memory, design methods and processes that involve prototyping, user testing, or any other physical interaction with an object or a person, have the potential to elicit a greater emotional response than if the ideas remained as drawings on screen or on paper. Then, physical movement and interaction are also important elements to keep in mind when deliberately practicing empathy in design.

2.5 From Emotional Synchrony to Emotional Intelligence

Emotional learning and empathic behavior start developing from early childhood, if not from birth. Yet, determining how empathic a person is may depend on unique personal factors, such as genetics, upbringing, relationship with primary caregivers, and/or life experiences. The
difference in those factors has not prevented researchers from developing tools that aim to measure how empathic individuals are. Mark Davis, for instance, developed an individual measure of empathy called the Interpersonal Reactivity Index (IRI) (Davis, 1983). The IRI is considered a multidimensional report given that it considers empathy as a set of constructs, related in that they respond to each other, but are also clearly distinguishable from one another. The IRI is a self-report consisting of 28 items, which has of four 7-item subscales addressing one aspect of the concept of empathy: Perspective taking (the tendency to spontaneously adopt the psychological point of view of others; Fantasy Scale (the respondents’ tendencies to transpose themselves imaginatively into the actions and feelings of fictitious characters in books, movies, or plays; Empathic Concern (other-oriented feelings of sympathy and concern for unfortunate others; and Personal Distress (self–oriented feelings of personal anxiety and unease in tense interpersonal settings (Davis, 1983). Davis’ model has long been used to assess empathy. However, over time, other authors have complemented or expanded on models like the IRI in an attempt to create a more accurate measurement of empathy, demonstrating the challenge of trying to assess how empathic a person is or can be.

Even though the “level of empathy” may differ from one person to another, there are general biological aspects that intervene in the process, like an activity in certain brain areas. Some studies in monkeys have shown a special type of motor neurons called mirror neurons. The mirror neurons respond similarly to the perception of someone else’s actions and one self’s production of actions. (Gallese et al. 2009; Iacoboni & Dapretto 2006). Although mirror neurons are not completely responsible for empathic feelings, it is thought that they provide a neural basis for connecting our own experiences to someone else’s, similarly to what Lipps proposed.
In addition, it is through imitation of others and the response that this generates on mirror neurons, that people start developing empathic behaviors at a very young age.

Theorist de Waal also proposed the Perception-Action Model of empathy, where he suggests that viewing another person’s emotional state activates one’s personal associations with it, unconsciously and automatically, causing one to react as one would do on one’s own to another person’s experience. (Preston & de Waal 2002). Then, people are constantly and inadvertently synchronizing to the emotions and actions of those around them, making them their own. Therefore, mimicry leads to synchronization, and synchronization leads to bonding. It designers are to engage with their peers, their clients, or their users, they should be aware of this subtle synchrony of actions and emotions, and learn to recognize how they affect themselves and others. We could say that, for a good empathic response to happen, it is necessary that an individual has a good understanding and control of their own emotions, which is commonly referred to as emotional intelligence. In other words, emotional intelligence is a key premise for empathy to exist. (Goleman, 2005)

In order to introduce emotional learning, two main theories of emotion were explored in depth. The first one comes from the psychologist Robert Plutchik, who studied emotions from a psych evolutionary perspective. He believed that emotions have been key to the survival of our species, and that there are 8 basic emotions that trigger responses in our brain as reactions to external stimuli. The basic emotions are joy, grief, trust, disgust, fear, anticipation, surprise, and anger (Plutchik, 2003). In addition to labeling these emotions and defining their role, he also established relationships amongst them and considered different levels of
intensity in them. His theory is visually represented through a wheel of emotions, a visualization that borrows the chromatic circle to establish similarities between emotions and colors.

The second theorist is Paul Ekman, a psychologist and professor emeritus at the University of California, who studied emotions in relation to facial expressions. He believed there was certain universality in the gestures that specific emotions produce in people’s faces, regardless of culture or language. It is important to note that other bodily expressions, such as hand gestures or posture, are not considered. The “universal” facial expressions respond to the following emotions: happiness, sadness, anger, disgust, fear, and surprise (Ekman, 2003). These six emotions are also part of the list proposed by Plutchik, which allows to establish connections between emotional vocabulary and non-verbal cues such as facial expression, which are an important way of emotional communication.
CHAPTER 3. PRECEDENT

3.1 Precedents for empathy in design: Design Authorship

During my initial approach to this research, I found a key turning for many designers in adopting an empathetic perspective occurred when they assumed authorship over their work. More specifically, there were two project examples of design authorship which served as referents for empathy addressed through design. In addition to being self-initiated, these reference projects had in common their subject matter: their author. This means the works were not only created outside of the designer–client relationship, but they also reflected—and reflected on—one or more aspects of the designer’s life. Two examples of projects of this nature are described below.

3.2 Data Portraits: The Human Side of Data

The graphic designer Nicholas Felton has made a reputation thanks to his work on data visualization and information design. One of the projects that helped him gain popularity was his *Annual Reports*, where he recorded the minutiae of his daily activities and visualized it at the end of each year using graphs, diagrams, and charts. The result was a clean and beautifully organized look into his life, into his routines, and into himself from 2005 to 2014. He documented the number of cups of coffee he had in a year, how much time he spent abroad, the postcards he received and where they came from, and many other themes which he documented in a personal annual report. His visualizations have allowed viewers around the globe to connect their own habits and routines to Felton’s data.
Figure 1. Sample Page in Felton's 2014 Annual Report

Note. Unlike his reports from previous years, this one is based on data about commercially available devices and applications. From 2014 Annual Report, by N. Felton, 2015, http://feltron.com/FAR14.html.
Dear Data was also a year-long project where Emily Posavec and Giorgia Lupi, both visual designers and creators of this experiment, exchanged handmade postcards every week in 2014. On Mondays, they picked a theme related to their lives, routines, or interests, and once the theme was clear they proceeded to collect data about it for seven days. The information was then translated into a visual form and encoded into instructions for the other to read. Some examples of the themes they used were the sounds they heard around them, how often they complained, and how many times they said thank you. The resulting postcards were organic and colorful representations that led to insightful reflections from the authors. The complete collection of the postcards was compiled in a book published in 2016.

Figure 2. Sample of Lupi and Posavec’s Dear Data Postcards.
Note. The theme for these postcards was “a week of laughter.” From Dear Data, by G. Lupi and S. Posavec, 2015, http://www.dear-data.com/theproject

These two examples of data collection and visualization, originally personal projects, developed into remarkable examples of design authorship. Furthermore, the design process of both projects resulted in an exploration of subjects like identity and memory, for which data was just a pretext. Particularly, Dear Data lends strongly humanistic aspects to its visualizations through its imperfect and expressive handmade nature. Additionally, the graphics used for the data representations are unconventional and abstract yet notably meticulous. Each postcard invites multiple interpretations, even though a legend is provided, and evokes a unique sense of closeness, as if the readers were the recipient of a dear friend’s account of their week.

Compared to Lupi and Posavec’s project, Felton’s reports are strictly rational and straightforward. Their use of conventional graphic resources to represent data, like bar diagrams and pie charts, indicates deliberate precision and leaves little room for alternative interpretations.

The result of both of these personal experiments is more interesting in the light of the current digital age and big data, an extensive accumulation of data collected daily through users’ interactions with their personal devices. Even though this amount of information has the potential to provide for more personalized, meaningful experiences for users, it could limit their choices and affect their decision making. The act of collecting, interpreting, and representing one’s own data becomes a powerful reaction against ubiquitous data collection methods and, most importantly, gives a soul to these otherwise dry digits. Lupi refers to what she does as data humanism, a deliberate reaction against a computer-generated representation of data and
its “neutrality,” and she believes it is a more honest, graspable approach to data that, after all, is generated by us humans. Perspectives like that of data humanism have the potential to enhance and encourage greater empathy in design practices.

3.3 Design Activism: Design to amplify a message

As this research was progressing, the COVID-19 virus rapidly spread through different countries, becoming a worldwide collective experience. Confinement, social distancing, and specific sanitary measures turned into fundamental practices to keep people safe. Because of the situation, in-person interactions became an immense challenge, and the internet became an even greater social playground where people connected to others around the globe without spreading the virus. Social media channels, too, were suddenly flooded with individual testimonies of the challenges around the new routines, allowing others to empathize with shared struggles. Hashtags such as #QuarantineLife, #CreativesAgainstCovid, #CoronaWarriors, #StaySafe, #StayHome, #CovidKindness, and #WearAMask emerged as a consequence, and designers and creators around the world came together to use their abilities to bring awareness, compassion, and collective goodwill. Through visual messages, they promoted empathic behaviors on a wide variety of issues, such as their appreciation towards first-line workers, the challenges of working from home, and the importance of social distancing and taking the necessary measures to protect others, to mention a few. These messages were amplified through campaigns like #CombatCovid, which invited renowned graphic designers to make posters related to the pandemic challenges and then displayed them on billboards in Times Square. Some of these posters are shown in Figure 3.
Figure 3. Posters for the #CombatCovid Campaign.

Note. The sources that follow coordinate with the posters from top left to bottom right: *Wash Hands*, by Richard McGuire, 2020, https://posterhouse.org/special-project/combattcovid/


*Stay Home*, by Jessica Hische, 2020, Poster House,

https://posterhouse.org/special-project/combattcovid/.

Social media platforms also turned into ephemeral billboards where users regularly created and amplified their own messages. As an exercise of empathy through image making and content sharing, I created an account on Instagram, an image-based social media platform, to share images and messages related to COVID-19. The account’s name was @coronahumans, and some of the images associated with it are shared below:

Figure 4: Examples of the images shared in the Instagram account @coronahumans
Some of the challenges that this experiment brought were related to the reach of each post and the points of view that motivated the images. Since it was a new account and it was not directly linked to me or another individual, the posts did not reach many people. In addition, I felt this initiative needed more perspectives than my own in order to truly explore and express empathy through image making. For this reason, I turned to my personal account on the same social media to share more personal stories related to the same topics, without feeling that I was speaking for more than one person whose voice I did not hear.
CHAPTER 4. METHODOLOGY

4.1 Case Study of Empathic Tool kits

In order to establish familiarity with existing designed materials focused on eliciting empathic behavior, the first step was to do a case study of empathy tool kits. For purposes of this study, a tool kit was defined as a set of tools which could be used by individuals who want to deliberately practice empathy. Although some of the found resources, such as books, videos, and websites, addressed empathic behavior and gave general advice on how a person can nurture it, few of them provided detailed instructions for how to exercise empathy through specific actions. After canvassing the field for empathy tool kit examples, I selected six resources for an in-depth review given that they were explicit in their intention to elicit empathic behavior and provided instructions on how to use them. I found the selected tool kits to be noteworthy in at least two of the following criteria: accessibility, variety, degree of development, and renown. The criteria are defined below:

1. **Accessibility: The tool kit is easy to find and easy to use.**
   
   Ease of access and clarity in use are particularly important qualities; they have the potential to empower people in addressing their own problems.
   
   Furthermore, having these tools at hand can encourage people to keep building upon them according to their specific needs.

2. **Variety: The tool kit offers a wide range of tools.**
   
   Since there are different sides of empathy and all of them work closely together, if a tool kit offers no more than one tool to work with, it will likely not address
enough empathy components or will not address them in enough depth to be effective.

3. **Degree of development: the tool kit is a designed product.**

Having tool kits past their testing phases ensures they have a certain level of refinement, both for their content and format.

4. **Renown: the tool kit’s creator is a leading figure in their field.**

Leading organizations and entrepreneurs continuously get feedback about their work. This means that they also have great knowledge of their audiences’ needs. By being the product of trusted organizations, these tool kits have a higher potential of responding to diverse users and a broader set of scenarios.

After each tool kit was assessed, it was necessary to compare the type of methodologies, formats, and audiences they were using and focusing on, to further understand the how empathy was being addressed. The following aspects were delineated for comparing the tool kits to one another: Name, Author, Goal, Approach to Empathy, Format, Intended Audiences, and Intended Use.

The synthesis of the tool kit’s comparison can be found in the following table, after which the six tool kits is described in detail one by one.
<table>
<thead>
<tr>
<th></th>
<th>NAME</th>
<th>AUTHOR</th>
<th>GOAL</th>
<th>APPROACH TO EMPATHY</th>
<th>FORMAT</th>
<th>INTENDED AUDIENCE</th>
<th>INTENDED USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IDEO Method Cards</td>
<td>IDEO</td>
<td>A set of cards that provide methods for looking at design problems from different angles, and gaining new perspectives.</td>
<td>The methods in these cards focus on understanding the final user of a given product or service. Through the different interactions proposed in these cards, the designers should get closer to their audiences and gain empathy towards them.</td>
<td>Stack of 51 cards. Text &amp; images. Comfortable size, meant to be easily carried around.</td>
<td>Designers. Educators. Creatives. Teams of collaborators.</td>
<td>As needed.</td>
</tr>
<tr>
<td>2</td>
<td>Start Empathy</td>
<td>Ashoka</td>
<td>This activity-based tool aims to facilitate the creation of a safe environment in the classrooms and develop emotional competency in the students.</td>
<td>This tool kit addresses empathy through assertive behavior. Students gain empathy by collaborating and working together, listening to others, and reflecting on their feelings and ideas after each activity.</td>
<td>Available in digital format to be downloaded and printed if wanted. 85 Pages total. Mostly text &amp; icons.</td>
<td>Educators. Mostly k to 5 grade students.</td>
<td>As complement of existing curricula.</td>
</tr>
<tr>
<td>3</td>
<td>Empathy Toolbox</td>
<td>Terry Deen</td>
<td>An activity-based resource, designed to introduce students to principles of empathic design. The goal is to reflect on the potential of design thinking as a tool for generating positive change.</td>
<td>This tool kit approaches empathy through team-work, collaborative ideation, and reflection. The activities allow students to work together on complex problems, research about the involved stakeholders, and brainstorm potential feasible solutions. In addition, one of the activities focuses on emotions and non-verbal communication.</td>
<td>Available in digital format to be downloaded and printed out. 14 Pages total. Mostly text and some tables to be filled out.</td>
<td>7 to 10 grade students. 11 to 12 grade students. Educators.</td>
<td>As complement of existing curricula.</td>
</tr>
<tr>
<td>4</td>
<td>Equity-Centered Community Design (ECCD) Field Guide</td>
<td>Creative Reaction Lab</td>
<td>This guide focuses on giving people tools to dismantle systemic oppression and build equity for all. It is presented as a non-linear process to solve problems in a community, based on its specific culture and needs.</td>
<td>Although empathy is reinforced throughout this guide, one of the tool kit's section is dedicated to empathy and humility building, in relation to personal biases. It encourages active listening and reflection on the impact that power, privilege and oppression have had on one's and others' life experiences.</td>
<td>Available as a small booklet or in digital format. 69 Pages total. Mostly text. Spaces for writing and/or drawing.</td>
<td>Members of a community.</td>
<td>As needed.</td>
</tr>
<tr>
<td>5</td>
<td>Emotional Barometer</td>
<td>The School of Life</td>
<td>A tool that aims to help people recognize their moods, and better communicate them to others.</td>
<td>This tool addresses empathy through self-understanding and self-awareness of inner emotional states, allowing people to relate to the motional states of others.</td>
<td>Small box with a movable dial; inside, 20 cards with text descriptions.</td>
<td>Not specified.</td>
<td>As needed.</td>
</tr>
<tr>
<td>6</td>
<td>Recipe</td>
<td>Eloise Gillard</td>
<td>This project aims to bring two countries at odds together through their shared ingredients in traditional cuisine.</td>
<td>In this resource, empathy is approached through bringing two dissimilar cultures together. It is also elicited through the design process and the interaction with the final product.</td>
<td>Box with printed graphic information. Inside, a printed recipe and portioned ingredients.</td>
<td>Not specified.</td>
<td>Single-use.</td>
</tr>
</tbody>
</table>
Tool kit’s description:

1. **IDEO Method Cards, by IDEO (ideo.com/post/method-cards)**

   The design consulting firm IDEO is widely known for its design-thinking approach for designing products and services. Their method cards were the result of requests from various clients, educators, students, and groups of people looking to add a creative twist to their problem-solving processes. Instead of detailed how-to instructions, each card features a method that falls into one of these categories: *ask, watch, learn, & try*. In addition, there is a brief example of the method in use, and a picture of it on the other side of the card. Considering that users are at the center of IDEO’s methodologies, the cards are a good resource for groups to find new ways to approach their end users and gain insights about them. This resource is one of the most direct of the six toolkits, as it requires the least amount of preparation to use it. However, given that the information in the cards is very succinct, those who are not familiar with design methodologies might need more guidance on how to apply those ideas to their specific processes. It should be noted, though, that since the release of their cards in 2003, IDEO has also made a website called [designkit.org](http://designkit.org), dedicated to exploring these methods in a step-by-step manner, perhaps realizing of the need of providing more guidance on their implementation. However, the method cards were prioritized over this website because of their simplicity and straightforwardness.

2. **Start Empathy, by Ashoka (startempathy.org/resources/toolkit/)**

   Ashoka is an organization that serves as a network for social innovators and entrepreneurs working to tackle some of the most pressing problems in society. *Start empathy* is one of Ashoka’s initiatives to promote empathy in schools, and this toolkit is one of their
available resources for that goal. By interviewing more than 60 educators and social
entrepreneurs, Ashoka set to identify key principles and how-to practices that help in
cultivating empathy. The result was this tool kit, which they see as a roadmap to building
empathy in the classrooms. This resource offers over 20 activities, and it is divided in three
main sections: Prepare, Engage and Reflect & Act. It has a behavioral focus, and it is based on
activities that are thoroughly described so that the teacher can guide the students through
them. Furthermore, it includes information about the duration, materials needed, and the
grade for which each activity would be appropriate. One of the great advantages of this
resource is the wide variety of activities it offers, which also come from diverse sources, giving
educators freedom and flexibility in how they want to incorporate them to their class curricula.
The activities do a great job in presenting students with several complex social issues,
encouraging them to work as a group to brainstorm possible solutions. Teachers are expected
to incorporate these activities to existing curricula as they see fit.

3. **Empathy Toolbox, by Terry Deen (designonline.org.au/toolkit-empathy-toolkit/)**

This toolkit was created as a complement to the cross-curriculum priorities of the
Australian National Curriculum, which include Aboriginal and Torres Strait Islander
Perspectives, Asia and Australia’s relationships with Asia, and Sustainability. It was developed
using Stanford University’s d.School BootCamp Bootleg (2013), research into Social Intelligence
and approaches to game design from the Institute of Play (2013). Stanford d.school, is
an institute based in Stanford University whose teaching focus is on design thinking. Thus,
design thinking approaches are the core of this tool kit.
This resource is an activity-based tool that provides information about the activities (description, duration, materials needed), and instructions for the teacher to lead them. There are 5 activities in total; they are listed with increasing levels of demand and challenge, focusing on one or more of these design phases: Inquire, Ideate, Implement.

Although his toolkit was developed to complement the Australia’s National Curriculum, and thus, there are a few activities that fit their objectives specifically, this resource can still be used in different educational contexts. In fact, it is interesting to observe how other countries are deliberately incorporating diverse cultures and traditions into their curriculums and creating resources to assist their objectives. Of the six toolkits, this one has the higher level of complexity both for the activities and for the required preparation before facilitating the activities. A bibliography with specific information cited in the activities’ descriptions is included, as well as external resources to complete some activities. The expectation is that educators familiarize themselves with existing literature about design thinking and empathy before guiding students through each activity.

4. **Equity-Centered Community Design (ECCD) Field Guide, by Creative Reaction Lab**

Creative Reaction Lab is an organization founded after the uprising in Ferguson, Missouri, where protests and riots began after the shooting of Michael Brown by a police officer, in August 2014. Their current mission combines education and civic engagement for racial justice and healthy living. For this organization, a designer is anyone who makes decisions that can impact other people. In that sense, creative problem-solving approaches such as design thinking, or human-centered design may not be enough to address complex human systems. The ECCD is a framework that acknowledges the role that people, systems, and power
structures play in equity issues, and seeks to facilitate conversations around new, more appropriate ways to address them. The guide is structured around 8 components: Inviting Diverse Co-Creators, Building Humility + Empathy, History + Healing, Acknowledging + Dismantling Power Constructs, Defining + Assessing The Topic/ Community Needs, Ideating Approaches, and Testing + Learning. These components serve as non-linear steps that the community can take towards addressing issues that are affecting them.

This guide is a starting point into ECCD’s framework; it provides basic descriptions and a few activities to spark conversations among people in the community, and further steps are to be defined and implemented by them. This tool requires participants to have a global understanding of how it works before starting using it. This means, each member of the community participating in each session should be familiar with the guide’s components and steps for the conversations and activities to flow more naturally. In addition, the role of the facilitator(s) is more important in this resource compared to others. Since the issues addressed by this tool may not be solvable using methodologies like Design Thinking, the authors did not determine a specific duration for each step or activity.

5. Emotional Barometer, by The School of Life (theschooloflife.com/shop/emotional-barometer/)

The School of Life is an organization founded in 2008 by the philosopher and author Alain de Botton. This organization’s emphasis is on self-knowledge and resilience, and it offers advice on diverse life issues through various channels, such as books, games, virtual classes, and a YouTube channel. The latter offers free videos touching on subjects like relationships, self, and work + capitalism, to mention a few. The emotional barometer is part of their Games &
Card Sets; it contains a movable paper dial with 20 different moods: Anxious, Loving, Dreamy, Confident, Guilty, Sulky, Grateful, Envious, Solitary, Obsessed, Ugly, Practical, Weepy, Sensual, Melancholy, Self-Pitying, Needy, Happy, Awed, and Nostalgic. In addition to the dial, a set of cards that explain each mood in detail is included. By having a clearer understanding of their moods, it is expected that people are able to express more assertively how they are feeling at a specific moment.


*Recipeace* is a graduation project from a student at Strate School of Design. The project consists of a box containing portioned ingredients from two countries in conflict, and instructions to cook one recipe with them. The author reflects on the physical and ideological lines dividing countries at odds, which tend to reveal historical rivalries fueled by cultural differences and political agendas. Beyond conventional branding elements, the box’s exterior features maps, pictures, and stories from people in each country. The package serves as the means to bring two conflicting countries to one place, and empathy is elicited by reflecting on the cultural heritage of traditional cuisine, whose influences transcend geographical and ideological boundaries. Furthermore, this project takes the idea that food can bring people together and explores it through design, in the light of current political issues.

4.2 General observations from the tool kits.

After analyzing the six toolkits described above, two groups were distinguished based on the similarities in their approaches to empathy. The first group, which covers toolkits 1-4, will be called guided tool kits since each resource provides explicit instructions on how to execute the activities they offer. The second group, which covers toolkits 5 and 6, will be called special
resources given that they have a strong relation to empathy, yet the way they address it is considerably different from the guided toolkits.

One of the main aspects in common amongst the guided toolkits is that they are designed to be used in groups settings. Considering that empathy is generally “exercised” through interaction with other people, it makes sense that the focus of these 4 tools is centered around established groups (classrooms, design teams, workshop participants, etc.). Therefore, even though there is room for participants to voice their individual thoughts, it is always in the context of a shared experience. Work for cultivating empathy as an individual is not addressed in much depth by these tools.

The types of activities found in the guided tool kits are also considerably similar (writing, drawing, brainstorming, roleplaying, ...). Particularly in tool kits 2, 3, and 4, the proposed activities follow a series of steps that ultimately lead to a moment for reflection when the activity is over. This means there is a need for at least one moderator, a person who can guide and facilitate the interaction between group members. Since tool kits 2 and 3 are designed for schools, the moderators for the activities are expected to be teachers. This can put a lot of pressure on the educators’ shoulders, as it may require additional planning and preparation on their part, potentially discouraging them from trying to implement some activities to prioritize their class plan. Particularly, in tool kit 3 teachers are expected to either be familiar or familiarize themselves with design thinking methods and empathy literature before guiding the activities. Considering the level of complexity of this resource, incorporating it to existing curricula might be difficult and time consuming for educators, as they may need more support in facilitating the activities appropriately. Conversely, the special resources do not need a
moderator to guide the experience because they are designed to be explored individually. In addition, an emotional component is more present in these resources. The fifth tool kit focuses on emotional literacy and self-awareness; it is a simple yet interesting attempt to take some ambiguity off of some emotional states, allowing people to have a better understanding of their emotional landscapes and, consequently, their peers’. The sixth tool kit does not directly address emotional vocabulary, but through the interaction with physical objects, it encourages curiosity towards other people and countries, while evoking personal experiences. Compared to the guided tool kits, only 2 and 3 specifically address emotional vocabulary and non-verbal communication in at least one of their activities. Since emotional intelligence plays a vital role in empathic behavior, a greater amount of activities addressing these subjects was expected from group experiences.

Finally, the tool kit from this group which does the best job of addressing empathy from multiple perspectives and has the potential to help participants build long-lasting empathic skills is, in my opinion, tool kit 2. Since its focus is on behavior shaping, the wide range of activities in this tool kit offers students the opportunity to explore multiple instances where empathy is needed, and a chance to reflect on what they were thinking and feeling after each activity. This resource is appropriate for its target audience, and its content is delivered in a very organized manner so that teachers who moderate the activities can easily follow it. It would be interesting to see more tools like these geared towards older students, and even adults, considering that social-emotional learning happens beyond childhood.
4.3 Windows of opportunity for a resource to facilitate empathic practices in design.

Evaluation of existing tool kits reveals how each is addressing and encouraging empathic behavior. When examining their shared approaches, it becomes evident that emotional insight is not adequately considered. Emotions have many nuances and therefore, it may seem impossible to study them through the lens of reason. However, just like empathy is not a fixed trait or skill, the ability to be emotionally intelligent is not fixed either and can, too, be developed. In order to empathize, a basic understanding of how we connect to other people emotionally must be in place, as well as how we read and interpret other’s emotional states.

In design practice, IDEO and Stanford’s school have been known for deliberately incorporating empathy through design thinking and human-centered design methods, which place users at the core of the design process. Furthermore, they have made great efforts to share their expertise in the form of books, cards, guides, and websites— all tools for people to explore design methods on their own. This, too, is key to IDEO’s and Stanford’s empathic approach to design. By creating and distributing resources in different formats, they are encouraging people to frame a problem from different perspectives, and empowering them to do it independently, based on their specific needs. It can be argued that in this manner they establish the strongest precedent for empathic design in the industry. Don Norman, the human-centered design pioneer, believes there cannot be such a thing as empathic design simply because it is not possible to truly understand the people for whom we are working or designing (Norman, 2019). He argues most of our behaviors creep in subconsciously, making them inaccessible and unknown even to ourselves. Furthermore, he claims that designers devise products and services that are meant to be used by hundreds, even millions of people, which
makes understanding an individual user futile. For this reason, he advocates for design to be focused on the activities people are trying to carry out rather than the people themselves. This should give designers enough insights of their audience’s capabilities and perspectives to develop solutions that support them.

Even if true empathic design cannot exist because it is naïve to pretend to know a target audience, as Norman argues, what still remains true is that design, at some point in the process, requires close interaction—or, at a minimum, close observation—of its final users. Therefore, there is room to create more human-centered approaches directed towards fostering empathic practices in design. A starting point to empathic design practices should focus on giving designers tools to cultivate in themselves before interacting with their users.

Theodor Lipps, one of the first speculators of the mechanics of empathy, argued that people inevitably experience others through themselves because one cannot feel anything that happens outside of oneself. Therefore, to empathize is, in a way, vicariously entering a foreign mind, share their experience, and realize that knowing another person starts from projecting our own feelings and experiences on them (de Waal, 2009). Moreover, if one person’s experience intensifies based on the perceived reaction of another person, then empathy requires emotional engagement in the first place (de Waal, 2009).

Some scholars undertaken taken the quest of understanding our emotions. Brené Brown, a professor and researcher, has spent several years studying courage, vulnerability, shame, and empathy. A great part of her contributions come from her efforts to reframe vulnerability as a driving force to empathy. She has authored several books addressing these subjects to prove that it is through them that we truly connect with other people, and it is
connection what gives purpose and meaning to people’s lives (Brown, 2011). Alain de Botton is another scholar who has put great emphasis in the relevance of self-knowledge and emotional education. Through his organization, The School of Life, Botton and his colleagues create well developed and defined products and services for people to explore the different angles of their emotional lives. This organization’s effort is also geared towards appreciating how rightfully imperfect human beings are, understanding that it is suffering that binds people together, and recognizing that those are the roots of compassion and connection with others.

These two authors have acknowledged the importance of exploring one’s emotional mind and have developed resources to encourage people to do so. Emotional exploration is key for designers to connect with other people during the design process, whether they are users, co-workers, or clients. Therefore, developing resources for designers to have a better understanding of their emotions and the role they play in their interactions with others will lead to more humane connections, and will positively impacting the design process.

Having recognized the need for emotional education for design processes, I have proposed a resource that provides a basic understanding of emotional intelligence and its relation to empathy. Emotional intelligence refers to the ability to identify and manage one’s own emotions, as well as the emotions of others. When evaluating existing resources supporting empathic design, the most widely distributed and accessible were found to be online, free of cost to access. Therefore, the format chosen for the resource developed as a component of this thesis was a website. In developing the tool, the following users were considered to help determine the most appropriate presentation, content and navigation.
• Beginning designers: Individuals who are just getting started on their training in design have the opportunity to explore and apply emotional intelligence to their design education and interaction with users as they find their way through the design process. Being at an early stage of their career will likely indicate that their age is also appropriate to continue building upon their social emotional skills.

• Design instructors: Providing resources that are designed specifically for design students will support educator’s effort to incorporate and facilitate activities and discussions around the importance of empathy in design practice, and how the classroom can become a space to practice social emotional skills in addition to technical skills.

• Practicing designers who want to learn more about user experience: Since there are areas of design that require less interaction with final users, a practicing designer who is looking to transition into a field that expects careful consideration of user experiences will find this resource as a good starting point.

The psychologists Peter Salovey and John Mayer have offered an in-depth definition of emotional intelligence by expanding its abilities into five domains: Knowing one’s emotions, Managing emotions, Motivating oneself, Recognizing emotions in others, Handling relationships (Goleman, 2005). These five components served as guidance and foundation to structure the content of the tool developed for this thesis, which specifically focuses on emotion recognition and handling. In addition, upon

The following are the main aspects of emotional intelligence that the website targets:

• Understanding what emotional intelligence is.

• Identifying and managing emotions.
• Understanding the importance of self-awareness.
• Provide an entry point to empathic practices.
• Provide further resources related to the development of emotional intelligence.

After the main audience and the scope of the website were defined, the next step for the proposal was to plan the scope of the resource to plan the information architecture. The first approaches to the website’s navigation and content focused on encompassing all the information under two main categories: Emotional literacy, which would explain the basics of emotions from a self-oriented perspective first, and then towards others; and Activities, which would provide resources for individuals and groups to practice empathy.

Figure 6: Initial approach to the information architecture.
Figure 7: Final information architecture.

Figure 7 shows the final information architecture used for this proposal, which also provides more detail about what is covered in each of the website’s sections. More details of the process are included in the appendix.

When defining the visual identity of the website, it was determined that having aesthetics that were reminiscent of humanistic values was important. Digital illustrations that imitate traditional materials, such as color pencils, are used to evoke the sensory appeal of
textures and colors over paper, bringing a hand-made feel to the digital space. The typefaces used have rounded features too, to complement the organic features of the illustrations, and the color palette includes three main colors in different shades. The stronger shades are used in the website to highlight information and give contrast and hierarchy to the different elements, while the softer shades of pastel colors are used in the illustrations and in decorative elements.

*Figure 8: Logotype and color palette used for the website.*

*Figure 9: Typefaces used for the website.*
Figure 10: Graphic style used for the website's images.
CHAPTER 5. RESULTS

5.1 The feeling brain website’s proposal

The first screen that people see once they access the website provides a brief explanation of this resource's goal, gives a general idea of what subjects are covered, and guides visitors on navigating the content if it is their first time there. Having the main sections accessible from the landing page also gives returning visitors an entry to any section they wish to visit. The three main sections are Emotional Intelligence, Yourself & Your Fellow Humans, and Activities & Resources.

Figure 11: Landing page of the website
The content related to emotions is placed immediately after the landing page to establish a basic understanding of emotional intelligence in the first section. In addition, visitors are introduced to the theories and models proposed by Robert Plutchik (2003) and Paul Ekman (2003). At the end of the first section, visitors are asked to match a facial expression to its corresponding trigger feeling by clicking the buttons on the bottom of the page and dragging them to the faces above (see appendix B for more details). Having an added level of interaction with the content allows visitors to reflect on each facial expression's characteristics and how people associate them almost unmistakably with the feeling they represent. At this point, visitors can access the remaining sections or go back up and explore any of the themes related to emotions in depth.

The second section on the website focuses on self-awareness, emotional contagion, and how these relate to empathy when it comes to social interactions. This section is divided into two subsections: Yourself, which focuses on individual aspects of emotion recognition; and Your fellow humans, which focuses on emotional interaction with others and gives an overview of what empathy is. Upon arriving at this section, visitors will see the Yourself subsection first, encouraging them to focus on individual work before moving forward to the Your fellow humans subsection. Knowledge of emotional intelligence and self-awareness gained from the previous sections should support the understanding of empathy and how to exercise and practice it.

The last section will provide visitors with activities and resources to exercise emotional intelligence and empathy, both individually and in group settings. Additionally, people can access external resources to expand their knowledge on emotional education from diverse
perspectives and through different formats. This section is divided into three subsections: *For yourself*, which contains resources meant to be practiced individually; *For groups of humans*, which contains resources geared towards the interaction between multiple participants; and *External resources*, which directs the website's visitors to other relevant resources they might find helpful to complement their emotional learning.
CHAPTER 6. SUMMARY AND DISCUSSION

The design practice has evolved from utilizing aesthetic, scientific precision—principles of modernity—to achieving egalitarian ideals, responding to a broader, more complex range of issues by doing so. Consequently, design problem-solving methodologies also had to change to bring solutions to newly defined wicked problems. By placing users at the core of their practice, designers have found new ways to approach their audiences and the unique circumstances that surround them, making empathy a valuable skill to nurture. Currently, two of the most renowned proponents of empathy in design have been IDEO and Stanford D.school, who use the human-centered methodology, design thinking, as the approach to their work.

Different tools and resources have been created to cultivate empathic practices and approaches during the design process. These resources specifically target empathy towards an external audience, assuming that whoever uses them is well versed in the art of empathizing. However, cultivating empathy is challenging because it depends on many external factors, making empathy inevitably dependent on unique contexts. However, one thing is indisputable: it is through one's own mind and experience that one can relate to others' minds and experiences. Therefore, there is a need to have a solid understanding of oneself and one's emotions to better understand and relate to others.

Emotional intelligence is a crucial ingredient of the affective side of empathy. Thus, emotional intelligence becomes an important starting point for the designers' ability to empathize with others at a deeper level. A greater emphasis on emotional education should be placed in design education and in different approaches to design methodologies. This research
and proposed tool aim to serve as an introductory resource to emotional education, hoping to provide a basic understanding of emotional literacy to facilitate empathic practices in design.

### 6.1 Limitations

One of the main limitations of this research is the number of reviewed tool kits. A more extensive analysis of a greater sampling may provide additional insights into approaching empathic behavior through specific tools. Additionally, given that the proposed resource focuses on emotional intelligence as an entryway to empathy, the affective side of empathy is explored further than its cognitive side.

It is also acknowledged that the resources and literature reviewed for this research have its origins in western cultures. Materials and literature from non-western cultures can provide different insights on diverse ways to approach empathy.

Given that empathy is exercised through individual interactions with others, it is hard to measure the impact that these tools have on empathic behavior. It is up to graphic designers to apply what they have learned and continue to work on their own emotional education.

### 6.2 Future Directions

Future research will focus on testing the existing prototype to gain direct feedback from users. This will allow for further iteration and development of the tool as an effective resource. In addition, it is important to bring diverse perspectives to the design process and implementation of this tool. This includes both users and experienced professionals in related areas of design, psychology, and education. The design and implementation processes should
include multiple iterations based on user testing and expert review, which was not part of the
development process of this tool to date.

Since one of the main goals of this resource is to inform people about existing theories
on emotional intelligence and how they relate to empathy, further development of this tool will
consider the potential that interactivity and customization of some features have in enhancing
learning experiences. For instance, making an interactive version of Plutchik’s wheel of
emotions can motivate visitors to think differently about emotions, especially since existing
versions of the wheel are mainly infographic. Customization has, too, the potential to make of
this resource a platform where users can chart and share their individual progress on empathic
behavior and practices, encouraging them to use this website as way to hold themselves
accountable in their ongoing process for cultivating empathy. By sharing the results of their
interactions with the offered resources, for example, users can easily keep track the results of
their iterations while allowing other visitors to see the evolution of the process. Seeing how
other people are behaving empathically and nurturing empathy through their practice can
inspire visitors to find new ways to adopt empathy in their own practice and process, and
ultimately, use this resource as a supporting tool to continually strengthen their skills.

Finally, the proposed website can provide a space for visitors to record how they define
and understand empathy. Documenting the different definitions and approaches to empathy
not only would serve as a great way to collect and compare information, but it would also
present an opportunity to see how the users’ understanding of empathy changes and adapts
over time.
REFERENCES


Gerstner, K. (1964) Designing Programmes. Lars Müller Publisher.


APPENDIX A  INFORMATION ARCHITECTURE AND WIREFRAMING PROCESS

Evolution of the information architecture

- **HOME**
- **All of us** (emotional education)
  - Introduction to emotional intelligence and emotional literacy.
  - Definition of an emotion and how to recognize one.
  - Categorization of the basic emotions.
- **Self** (individual)
  - Definition and importance of self-awareness in relation to emotions.
  - Introduction to emotional contagion and mimicry as two key elements of self-awareness.
- **Others** (teams or groups)
  - What it means to practice empathy with other people.
  - Ways to better express empathy towards others.
- **Activities**
  - Individual activities that encourage self-awareness and reflection.
  - Group activities that encourage emotional interactions and empathic responses from people.
HOME

- Explains what the website is about and why it is relevant for designers.
- Links emotional intelligence to empathy.

All of us (emotional education)

- Introduction to emotional intelligence and emotional literacy.
- Definition of an emotion and how to recognize one.
- Categorization of the basic emotions.

Self (individual)

- Definition and importance of self-awareness in relation to emotions.
- Introduction to emotional contagion and mimicry as two key elements of self-awareness.

Others (teams or groups)

- What it means to practice empathy with other people.
- Ways to better express empathy towards others.

Activities

- Individual activities that encourage self-awareness and reflection.
- Group activities that encourage emotional interactions and empathic responses from people.
Initial wireframes for the website

Welcome to the Jungle of Emotions

Empathic practices in design start with empathic designers. Lorem Ipsum aims to introduce designers to emotional intelligence, an essential entry point to empathy. Our goal is to encourage meaningful interactions between designers, clients, audiences, co-creators, and all the parties involved in the design process.

What is Emotional Intelligence, Anyway?

We’re glad you asked! Emotional intelligence is the ability to identify and manage one’s own emotions, as well as the emotions of others.

As innate problem solvers & communication experts, designers should be emotionally intelligent to develop successful solutions that respond to the user’s needs.

Start Here to Learn More About Emotions

Or continue here if you are ready to learn about how emotional intelligence relates to yourself and your fellow humans, or if you want to explore activities related to emotional interactions.
EMOTIONAL INTELLIGENCE

WHEEL OF EMOTIONS
Robert Plutchik has studied emotions from a psychoevolutionary perspective for a long time. One of his most remarkable contributions was his wheel of emotions. Besides naming them, this wheel establishes relationships between emotions, and considers intensity levels in them.

EXPLORE THE EMOTIONAL FAMILIES

We recommend that you follow the sections in this order, but feel free to explore each section as you please.
SELF AWARENESS

Self-awareness - mind investigates and experience itself. This includes emotions. Emotional awareness means to be aware of one's mood and one's thoughts about that mood. Self control builds on self awareness. Thus, being emotionally aware is an important competence.

SYMPTOMS

- Enjoyment
- Disgust
- Anger
- Sadness
- Fear
- Surprise
- Shame
- Love
Section 1: Emotional intelligence

What is emotional intelligence, anyway?

We’re glad you asked! Emotional intelligence is generally defined as the ability to identify and manage one’s own emotions, as well as the emotions of others. Emotional intelligence implies understanding the key components of emotional functioning; to introspect and communicate, to read the moods of others, to relate with patience, charity, and imagination to their less edifying moments.

As prime problem solvers & communication experts, designers should be able to connect to other peoples’ experiences in order to create products and services that respond to their users’ needs. Empathy requires emotional engagement, which makes emotional intelligence a key ingredient of the design process.
Primary, secondary, & opposite emotions

The psychologist Robert Plutchik studied emotion from a psycho evolutionary perspective, i.e., the role that emotions have played in human evolution. He believed that we have primary, almost rudimentary emotions, that helped our ancestors in interacting with the environment and learning when to fight or flight, to explore or hide, to keep or let go, all in order to survive.

Plutchik proposed the wheel of emotions, a visual representation of his theory that borrows the color wheel to show, through hues and shades, how emotions relate to one another. The emotional gamut comprises many more than the 32 emotions depicted here. However, this is a good starting point in identifying similarities, differences, and intensities of our emotional spectrum.

The body & the emotions

Emotions are inevitably related to facial expressions, body postures, and vocalisations. Human beings have learned to read emotions in others by interpreting very subtle cues.

The psychologist Paul Ekman discovered that there are certain facial expressions related to specific emotions. These expressions seem to be universally recognized regardless of a person’s culture. What triggers them, though, does change from person to person.

Can you associate each emotion to its corresponding facial expression?

I want to learn more
that there are certain facial expressions related to specific emotions. These expressions seem to be universally recognized regardless of a person's culture. What triggers them, though, does change from person to person.

Can you associate each emotion to its corresponding facial expression?

I want to learn more

Anger
Disgust
Surprise
Joy
Fear
Sadness

You have reached the end of this section!

Continue to section 2: Yourself and your fellow humans
Continue to section 3: Resources

Go up
Section 2: Yourself and your fellow humans
But don’t catch them all!

Emotions are contagious. Our body is constantly reading the environment and responding to it. When we are around other people, we tend to subtly and unconsciously imitate their gestures, body posture, and even the tone of their voices. This process is called mimicry.

In mimicking others, our brain elicits emotional responses associated with those gestures. Then, emotions can trigger actions and vice versa. Being emotionally aware means to consciously prevent catching negative emotions, as well as spreading them to other people.

I want to learn more

---

We have some resources for you to practice self-awareness. Would you like to see them?

Yes! Please take me there!

No, thanks! Take me to the home page
Many of our emotions are tied to social interactions. Inadvertently, we communicate with others through non-verbal cues at all times. Making eye contact, listening actively, keeping and open posture and soft hand expressions are great ways to engage with your interlocutors and empathize with them.

Empathy is multi-layered, like a Russian doll. It is just as cognitive as it is affective. It comes from the bottom up and from inside out.
Empathy vs. Sympathy

We tend to associate empathy with someone else’s pain and struggle, but empathy actually involves understanding and sharing a wide range of emotions, both positive and negative. Empathy and sympathy are oftentimes used as synonyms, and, although the difference between them may seem subtle, it is a big one in practice.

Brené Brown has researched empathy and vulnerability for several years, and she explains sympathy as feeling for somebody, while empathy is feeling with somebody.

Because of their complex and mutable nature, most emotions can feel uncontrollable. Like some visitors, they can come uninvited, and sometimes, unwanted. You may not be able to control when your emotions show up, but you do have control of how you react when they come. This is another reason why emotional awareness is so important.

We have some resources for you to practice self-awareness. Would you like to see them?

Yes! Please take me there!

No, thanks! Take me to the home page
Section 3: Activities and resources
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<thead>
<tr>
<th>the feeling brain</th>
<th>Resources</th>
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<td>Resources</td>
<td>External resources</td>
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<td>For yourself</td>
<td>For groups of humans</td>
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<th>Design Kit</th>
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<td>This organization focuses on self-knowledge and resilience. Visit their YouTube channel to...</td>
<td>This website has the best of IDEO’s design methods. If you don’t know how to approach...</td>
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<td>Read More</td>
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<th>The Happy Newspaper</th>
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<td>How good are you at reading people’s emotions just by looking at their eyes? Find out by taking...</td>
<td>If you are looking for inspiration of how design can spread empathy, here’s a good example...</td>
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