The Mediated Self: Technological Mediation of the Self During Meditation Practices

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Abstract

For the last century, it has not gone unnoticed that an uplifting trend around mindfulness and meditation emerged in western culture. It is as if, more than ever, humans beings are trying to obtain and maintain a healthy connection between the mind and the body. My claim is that within these meditation practices, a new perspective of the self is formed because we combine technology with this mindful practice. Within the thesis, the call was to investigate the perspective of the self during meditation and how this perspective is shaped by surrounding technologies with the research question: How is the perspective of the self shaped by surrounding technology during meditation? In the first chapter, I answered the question: What is the perception of the self during meditation? Here a new perspective of the self during meditation was shaped in the form of the Meditation Subject. It is shown, by philosophical and Buddhistic theories, that different angles on the self, the ‘I’, the mind and the body are essential during meditation practice. Together they create this new perception of the self, which I call the Meditation Subject. In the next chapter, the need and techniques of meditation practices are researched. They show that there are - not only - mental effect of stress and meditation, but also physical changes to the body when (or after) meditation. Technological devices and tools are used to show people new techniques or guidance of the meditation in the form of a) environmental technologies, b) technological artefacts, c) technological wearables and d) (Technological) Social Connections. This chapter showed that efficient and ready at hand technology enter the realm of meditation because the technology is seen as a health-enhancing method. In the third chapter, I wanted to explore this mind-body-technology connecting from a more epistemic angle with the help of the already existing post-phenomenology theory. Therefore, the question, How do every-day technology mediate our perception of the world? was raised. In this chapter, we learn that technologies mediate how we perceive the world, as explained in the theory of post-phenomenology. This is because using and interacting with technology creates a meditated perspective of the world, and this perspective is our (new) reality. Four categories show us that we can see the world mediated by technology in different ways. There is the category of (E) embodied relation, (H) hermeneutic relation, (A) alterity relation and (B) background relation. In the last chapter, I tried to tighten the knots together. Instead of directing the human-technology relation towards the world, the association is directed towards the perspective of the Meditation Subject (the mediated self). Here, I want to show and unravel the gap between technology and the mind-body connection and what this means for the self in meditation. My ideas are analysed by a case study of the Silence Suit by Danielle Roberts. This case study showed that a) there are several levels on meditation and how ‘easy’ one can disconnect from the material world and body, and b) that by doing meditation the mind seems to have an overhand position, but that position seems to be in danger because the gap between the meditation subject and technologies shows that the connection to the body is as important as the connection to the mind. By inviting technologies into our meditation practices, we challenge the ability to break with the line that is connected to the body (which is what we see Buddhist do.) This is because the technologies operate in this material realm and keep the practitioner in constant awareness of this realm (especially those who are new to the practice.) Answering the main question, technologies do shape the perspective of the self during meditation because they invite the perception (and awareness) of the body into the practice, making it a part of the perception together with the mind. Therefore, when perceiving the self, we are continuously shifting from different views and different self-phenomenological perspectives trying to find that one thought, or not find that one thought that keeps our emotions and healthiness in balance.
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Introduction

“Most cultures have produced men and woman who have found that certain deliberated uses of attention – mindfulness, meditation, yoga – can transform their perception of the world”, these are words of Sam Harris in his book Waking Up: A Guide to Spirituality Without Religion (2014, p.12). For the last century, it has not gone unnoticed that an uplifting trend around mindfulness and meditation emerged in western culture. It is as if, more than ever, human beings are trying to obtain and maintain a healthy connection between the mind and the body. For this purpose, the old Buddhistic beliefs and practices are visited or re-visited. The ancient techniques and wisdom in practice are used for mental and physical stress-relief exercises in the form of mindfulness, meditation and yoga. This urge for mental relaxation and peace could be seen as a side effect of high-stress levels, caused by the twenty-four-seven workload and attention-span, which is connected to modern technologies and their scripted use (Salanova, Llorens, & Cifre, 2012). This is backed up further by studies which show that the use of meditation as a method for health benefit has been uprising, mainly because the western everyday lifestyles are dominated by ‘fast’ communication, technology, tasks and habits which are responsible for increasing stress, anxiety and shortening of attention span (Jha, Krompinger, & Baime, 2007; Miller, Fletcher, & Kabat-Zinn, 1995). There are many different techniques on how to calm the mind and body or how to be consciously present in the moment. Practices like mindfulness, vipassana, yoga and other types of meditation have been used for reconnecting with the self and the body regardless of the circumstances, and are considered excellent invigorating practices for calming the mind and body. Besides the applicable techniques, there are also different stages of competence and ability when it comes to meditation and mindfulness, depending on the level of skills and practice time of the meditator (Kristeller, 1999). The most commonly used and well-known technique is that of sitting quietly on the ground in a comfortable position with your eyes closed, thinking about how the body and the mind feel (Villines, 2017). These practices could be done at home, in a practise room, in a (local) studio, with other people, alone or guided by a guide. It is well known that technologies have been developing at a rapid pace over the last decades. This technological development caused a new type of meditation practice to emerge over the previous years as well. At-home, this development of being able to connect with technology is developing in a new kind of modern meditation practices. At-home practitioners turn towards technological assistance, which is accessible through the internet in the form of videos, webpages and other content. This technical network helps people meditate whenever or wherever, and this could shape how we perceive the experience because technology now enters the meditative realm of the personal mind-body connection. In this case, the
meditation practice is not only about turning to the self anymore, but it also includes a technological environment. I claim that by using technological surroundings to accomplish the goal of connecting to the mind and the body faster, the technological environment plays an essential role during the meditation and the connection with the self. It might seem that the use of technology in the form of tools, tutorials, light, sounds and clothes shape new ways of connecting more easily with the meditation, but I claim that it also changes how we perceive the self, maybe to such extent that the opposite effect happens. In other words, using technology while meditating can create a different relationship or method for working towards the healthy connection between the body and the mind.

In this thesis, I will investigate how the use of technology applies to meditation and how it enters the realm of the self. In order to do this, I will first look at the two different sides that are implied here. On one side, there is the mind-body relation within oneself, which can be best analysed with theories on Buddhism, ontology and consciousness, trying to understand what meditating means for the relation with the I. Here, it is important to not only understand the mind-body connection during meditation but also how the self and the I are perceived. For this, ancient Buddhistic theories on meditation will be compared to modern practices and effects, to see if a framework or guidelines could be established on how to look at the self in meditation.

On the other side, there is a relation with technology, which indicates a more post-phenomenological approach to see how humans interact and react with technology in meditative circumstances. This philosophy of technology theory will be discussed because it explains how people are mediated by their technological surroundings and how this technology changes their relation to the world. This theory shows what happens when technology plays a role in the realm of meditation and this active practice of mind and body, creating an I-Technology-Self involvement.

Lastly, in order to see whether the idea of I-Technology-Self is applicable or present in real-life practice, I turn towards a case study provided by designer and artist Danielle Roberts. She developed a technological suit which can be worn during a meditation session. The suit, called Silence Suit, is equipped with sensors which are collecting physical and environmental data from the body, for the goal of seeing, understanding and perfecting the meditation session afterwards. The data obtained with the sensors gives the practitioner an insight into how their body reacted during the meditation, but also at what levels different environmental circumstances (like temperature and light intensity) were during the meditation. This case study will imply whether the I-Technology-Self involvement is retractable on how we perceive the self.
I. Problem statement

The introduction introduced several aspects coming to light about the use of meditation in a modern timeframe. First, there is the uprising trend of maintaining and obtaining a healthy lifestyle by different practices. Second, the idea of how we perceive the self and how we develop the relation with the self and the bodies is shaped by these different practices. Third, there is the technological influence and adoptions on meditation practices. A new perspective is created by combining these three aspects and what they encounter, shaping a different approach of understanding the self mediated by technology. This can be revealed through the following research question: How is the perspective of the self shaped by surrounding technology during meditation?

To answer this question, the first chapter will be focused on the sub-question: What is the perception of the self during meditation? Here, I will define what the ancient theories about the understanding of the self. I will look at the origin of meditation flourished from Buddhism, and which philosophical aspects play a role here. In the second chapter, I will answer the question: Why do we surround ourselves with technology during modern meditation practices? This chapter is the link between the ancient techniques and current adoption of meditation, and why we think it is needed. In the third chapter, I will turn towards the mediation of technology theory through the lens of post-phenomenology with the question: How do every-day technology mediate our perception of the world? Last, I will use the above knowledge to ask how every-day technology during a meditation practice mediate the perception of the self. Also, this theory is analysed by use of a case study of the Silence Suit.

This thesis is interesting for both people who are acquainted with meditation practices and those who are not. This is the case because the ideas and theories on the perception of the self and technological mediation can be revealing for everybody since the lens of meditation and mindfulness is used. The thesis is a journey from the debts of Buddhism towards the everyday meditation practices in the modern world, trying to unravel a new perspective on how to look at the self concerning technology.
Chapter 1
The Self in Meditation

Theoretical background on meditation and the perception of the self during meditation.

Since ancient times, there have been philosophical questions involved with the understanding of the self. From the very beginning of humankind, questions about ‘What is the self?’ or ‘What is being?’ are the foundation of philosophical ramifications such as ontology, anthropology and (post)humanism\(^1\). My goal is to see what aspects and elements of existing theories are relatable to that of the self in meditation practices and mindfulness in Buddhism origins. In this first chapter, I will answer the question: What is the perception of the self during meditation? Here, I define what the ancient theories are implying about the perception of the self. I will look at the origin of meditation as flourished from Buddhism, and search for philosophical aspects that play a role here. The overall addressed issue is the possibility of different perceptions of the self because it shows the diversity and difficulty of this topic. To understand how to approach the self and create a specific outline for this case, it is essential to analyse the ongoing interdisciplinary discussion which is (always) concerning this topic and connect it with the Buddhistic perspective. In order to do this, I will include and exclude some of the existing theories on the self and see how to frame them. I will do so by linking them to Buddhism and the ancient practices of meditation so that there is an outlined definition of the self (and everything included) before we turn towards the mediation of technology.

I. The Buddhistic basics of meditation and mindfulness

Although the practice of meditation and mindfulness has aroused in western culture during the last decades, the used techniques did not evolve recently. Rather, its mindset, theories, and philosophy have been used in human religions, psychology and medicine practices for many centuries. Both Buddhism and Hinduism are religions which are constituent of meditation practices due to its Zen form\(^2\). The term meditation covers a wide range of mental practices. These practices are centred around consciousness, working with the shifting states of consciousness and its content, of that which is luminous and knowing (Feinberg & Keenan, 2005; Thompson, 2014). Meditation practices are used to connect the inner mind

\(^1\) Ontological theories are concentrating on the study of being, also represented in Christian metaphysics (“Why do I exist?” “Because God made us”), where anthropological studies are more pointed towards the study of human development in areas of behaviour, social behaviour and language, phenomena, biology and the perspective of a person (e.g. first-person perspective). In studies about humanism, the question of how humans are defines is researched. Post-humanism takes this a step further to see what the future perspective of and for humans could imply. (Cisney, Unknown)

\(^2\) What Zen is, is hard to grasp precisely, but it is sometimes described as the art of seeing into the nature of one’s own being (Suzuki, 1961). It is both something we are (a form of true nature existing from moment to moment) and the things we do – a discipline method or practice to realize we are alive and finding joy in this realization (Watts, 2000).
and the body on an awareness level, to feel connected to oneself and the world around you. This is to live in the moment or to take a different standpoint on the worldview by disconnecting from the world by looking inside and thereby, reflect on how you feel like a human being. Such practices turn out to have a significant impact on how one perceives and interacts with the ‘outer’ world as ones stress level reduces or mental calmness improves. In chapter two, I will elaborate more on this subject of stress and stress reduction.

Buddhism does not exist in one philosophy or one school. Instead, the distinct number of Buddhist schools are most likely to be separated by geographical separation, intellectual disagreement, and differing philosophical views (Griffiths, 1986). Buddhism has many traditions and techniques to focus the mind, and these are slightly different or adjusted, creating different branches and methods (partly due to geographical separations). Zen form meditation is an umbrella term for the branch of meditation types that emphasises Dhyana\(^3\), being awareness and concentration meditation. These types of meditation can be practised in many different forms, and it is the different philosophy behind these forms what shapes these forms and distinguish differences. As theologian Paul J. Griffiths describes: “It is upon a meditative practice that the religious life of the Buddhist virtuoso is based and from such practice that systematic Buddhist philosophical and soteriological theory begins” (Griffiths, 1986, p. Xiii). That is one of the reasons why most of the meditation practices find their origin in the philosophy of Buddhism (Griffiths, 1986). The same way within Dhyana, there is the side of Vipassana meditation about attentive awareness and the side of Samantha, about the concentration of the mind. Regardless of which form, the practice of correct mindfulness is very important in Buddhism on the grounds of it being one of the Eightfold Path to extinguish the suffering\(^4\) (Aich, 2013). In mindfulness or Vipassana practise, the awareness of thoughts stands central. As Professor Emeritus Jean Kristeller describes it in chapter fifteen of Principles and Practice of Stress Management (2007): “the practice of mindfulness primarily cultivates the ability to bring a non-judgmental sustained awareness to the object of attention” (1999, p.393)\(^5\). This concept is, however, slightly different than another branch called Tibetan meditation in which the awareness is continuously directed towards one single object or mantra. Elements of mindfulness are represented in Tibetan meditation and techniques of Zen meditation are often used, which indicates that the practices are closely related.

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\(^3\) Dhyana is a part of yoga which is called meditation. Dhyana is achieved through the practice of breathing (pranayama), concentration (dharana), turning inwards (pratyahara) and the right poses (\(\text{āsāna}\)) (Iyengar, 1979 p. 51).

\(^4\) A\(\text{ṣṭ\text{ā}ṅgika-\text{marga}}, or the \text{Eightfold Path} is a way to describe or formulate the path to enlightenment. The path has eight elements which each help you come closer to nirvana or to extinguish \text{Dukkha} (the suffering). (The Editors of Encyclopaedia Britannica, 2013; Ibid, 2003)

\(^5\) Kristellers article, written in 1999, was used in this collection of work. In this chapter of Principles and Practice of Stress Management (2007) Kristeller focuses on the role of meditation and mindfulness in clinical therapy, and on how meditation as part of the therapeutic process relates to spiritual growth and development.
Nevertheless, as Kristeller explains: “mindfulness meditation involves the cultivation of moment-to-moment, non-judgmental awareness of one’s present experience, whether narrowly or more broadly focused” (Kristeller, 1999, p.395). At this moment, it is about the awareness of internal and external experiences and thoughts, without reacting or interacting with them. The inner experiences could consist of cognitive-affective-sensory, and the external experience of one’s social-environmental stimuli (e.g. sounds of a clock or neighbour), which are both being recognised but not engaged with during the meditation. This process could also be called ‘decoupling’ (Schooler et al., 2011). With this, one disengages the fraught or threatening of the thought and could be able to let them be. This could emerge into the skill of both having the ability to sustain attention on a single object, and the ability to be openly aware of the feeling of experience without suppressing anything that comes arises (Thompson, 2014). This idea of decoupling shows that there is a certain back and forth connection between the mind and the body that, within zen meditation, should almost be overcome. During meditation, one is turned inwards to focus on the self. Here, one image or perspective on the self is created. I want to know how to understand this image and whether we could stabilise or capture it. Altogether, the Buddhistic tree of Zen had many different branches all pointing to varying methods like Vipassana or Tibetan meditation. For this thesis I do not aim to one particular method or describe which one fits best. However, I do keep in mind that the meditator is turning inwards to look at the self and that the origin of the meditation lies within Buddhistic traditions.

II. Buddhism and search for the self

In Buddhist traditions, Zen is a very important anchor when it comes to self-identification. It can be interpreted as Zen pointing the way from being a prisoner to gaining freedom. During this journey, one would have to balance - or make use of - a mysterious power that is kept in human bodies like an electric battery. Not dealing with, or dealing badly with, this power makes the body and mind troubled or react abnormally, or could be bad for the self-development and feeling of freedom. Because freedom is the opposite, it makes the heart free to interfere with beautiful and gracious impulses. The subject of self-recognition has not been unnoticed in philosophy. Many different philosophers try to give answers on how the ‘I’ can be perceived or what the self is. For example, Friedrich Nietzsche would agree with the idea of the journey. For him, humanity is a journey (bridge) between animal and the so-called Übermensch, in which striving for change is always its end-goal (Nietzsche, 1883–1891). Nietzsche implicates that humans need to transform themselves and their identity through a denial of existence. This will count for self-growth and self-understanding in the same way as Buddhism would argue for a
deeper state of meditation, in which one can perceive enlightenment of awakened intellect and understanding to come closer to its nihilistic central goal of nirvana⁶ (Wright, 2016).

Another example of looking at this Buddhistic perspective is that it is also familiar with what ancient philosopher Aristotle explains in his book(s) Nicomachean⁷. Here, the soul is the essence of a human being, and the body is one unique thing with a soul. Comparing this philosophical perspective to the Buddhistic view, it can almost be said that a ‘mystical power’ which thrives the body is the soul. Aristotle agrees with finding a balance within yourself to live a good life. This is going more towards virtue ethics, but still, the core idea is comparable. If we look at how the body is then connected to the soul, we move towards a discussion of fixed and changeable self. According to Aristotle, human beings (as being a certain kind of thing) have a relatively fixed essence. This nature is stipulated on what it means to be a human, and that this is connected to the soul of the being, its essence⁸. As the mind and body could be exposed to change by time, the essence or soul of the substance could not. This implies that the self can almost be seen as a fixed entity, exposed to change. In summary, Aristotle agrees at a certain level, that the soul grasps certain experience stimuli which are used for finding the truth or a way to a good life. However, the essence of a substance is unchangeable within the substance. This indicates that the soul is always connected to its body, or at least it describes the essence as the cause of being an individual substance (Witt, 1994).

Besides the Buddhism mindset of self-identification as a journey, there is another more orthodox Buddhism perspective on the self. It comes from the ‘Theravādin’ branch of Buddhism, and it implies that one could reach enlightenment through meditation if one would believe in the following three things; firstly, nothing is permanent because everything is subjected to change⁹. Secondly, life is suffering (dukkha) because we all die eventually. Thirdly, there is no self or no essence¹⁰ because - back to rule one and two – if everything is impermanent, then there is no such thing as a permanent soul. If something is unstable, it has the nature to change, and if it causes suffering, one cannot call it the self. In other words, you think you have power over you and are in control of your body by doing all kind of

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⁶ Nirvana is the supreme goal of many meditation disciplines. It could also mean nothingness or becoming extinguished as someone reaches the end-point of extinction of desire, hatred, and ignorance. It leads to the ultimate end of suffering and rebirth. (The Editors of Encyclopaedia Britannica, 2011)

⁷ Nicomachean are books by Aristotle and best known for its understanding of ethics. It is put together based on notes from his lectures at the Lyceum. In this work we read about virtuous ethics, the human character and what role these two play in finding happiness. (Aristotle, Nicomachean Ethics Book VI, 350 B.C.E) ⁸ It is the soul that grasps the truth using phronesis (intelligence), noûs (understanding), sophia (wisdom), epistemé (scientific knowledge) and techné (art and craft) which makes it appear changeable (Aristotle, Nicomachean Ethics Book VI, 350 B.C.E; Aristotle, 1977).

⁹ Impermanence or Anicca is one of the three ‘marks’ that make up the ti-lakkhana. The ti-Lakkhana are the basic characteristics of all phenomenal existence (The Editors of Encyclopaedia Britannica, 2003)

¹⁰ Anattā - or the absence of an abiding self - is also one of the marks of ti-lakkahna. (The Editors of Encyclopaedia Britannica, 2007)
actions like walking and talking, however, there are major exceptions we cannot deny (Bhante, 2017). For example, we cannot tell our bodies not to grow old or not to get sick. Because of this, we cannot consider it a self or a permanent soul (Bhante, 2017). This perspective is contrary to that of the philosophical understand by Aristotle because he believes that the soul is the essence of a substance. However, it could be argued that they both talk about other things. Buddhism is seen as a more spiritual journey, which includes the overall impact of change within the body but not the soul (because there is none) while Aristotle’s ontology shows the soul does adjust to the changing variables through the body.

It is important to understand that there is a difference in terminology when talking about the self and that the previously explained interpretation is one view of many. However, when meditating, the method on how to perceive the self, even if it is different than others, is a segment of the meditation. To create an outline on what to expect during meditation, the perception of the self is one part. The schematic Figure 1. shows what aspects are essential when thinking of the self, provided by the literature discussed above. This circle in Figure 1 is a representation of different levels of how one can interpret the self. As mentioned with the Buddhistic origin and with Aristotle his perspective, it was shown how one could perceive the self or how to deal with this perception, seeing the self as a journey and not an end-goal or fixed entity.

Next, we will turn to three other elements which are important and contributing to the core of meditation practice to create a concrete outline of what is happening with a complete outlook of the self. This outline is done because I claim that with only the philosophical perspectives of the self, the range of possibilities and understanding is not complete. There are other elements to consider, which will be described next.
III. Creating the ‘I’

Meditation has a significant impact on how one perceives oneself. As Dr Evan Thompson explains, when looking at meditation it is about the awareness of conceptual surroundings such as thoughts, perception, dreams, memory, and emotion\(^{11}\) (Talks at Google; Thompson, E., 2016). Within this activity of ‘becoming aware’ or ‘decoupling’, there are different ways of identifying the content. For example, ‘I-Me-Mine’ or ‘Not-Me’ perspectives. This idea indicates that there is a basic ‘I’ and a ‘not-I’ distinction, which is operative through the changing content of awareness. This process can be called ‘I-making’. It is part of the process of making sense of the self or self-identification (Thompson, 2014). Dreams are particularly close to how we see the ‘I’ during meditation. When meditating, the awareness is directed towards the ‘I’ in that specific moment. The human-self, which is shaped by experience, memories, dreams and epistemic background knowledge, is temporarily suspended during the meditation. It is not about what one knows or judging the thoughts; rather, the mindfulness meditation is about being aware of the thoughts as they are on their own while being in the moment right now. It is a lifestyle that requires acceptance of the environment and is not linked to impulse decisions. So, it makes the decision-making-thoughts form a different perspective because the thought has been considered in a newer way or even taken out of perspective. Therefore, ‘wiser’ decisions or reasoning can be made. When somebody has an experience of body sensations and thoughts, they immediately experience this feeling of ‘mine’ versus ‘the world’ or something that is experienced as ‘not me’. That means there is a primary self/not-self distinction that is throughout the changing contents of awareness (Thompson, 2014).

Another critical aspect of identifying the ‘I’ is due to is sociological influence or ‘sameness’. In the sociocentric view, the ‘I’ is viewed as dependent on the situation or social setting. Here, the membership of a person in a particular social group defines the boundaries of the identity. That is why, in this case, we should no longer speak of the self but rather the ‘I’ as a different element. The ‘I’ is more represented within one’s identity, who a person is and how one became, rather than the anthropological perspective of the self and where the core of human beings is manifested. A more anthropological approach teaches us about the behaviour of humans and how important this behaviour can be for shaping or creating the personal ‘I’. Literature states that the concept of identity has undergone a paradigm shift in recent decades (Sökefel, 1999). At first, it was about the ‘sameness’ overlapping peoples’ self-images, or in psychology so-called ‘selfsameness’. Identity was linked to the characterisation of personal features obtained from experience during childhood and which, once integrated, were almost entirely fixed. Here, it was one’s identity what made a human being act as an

\(^{11}\) The field of Thompson is focused on the I-Making within consciousness and dreams, there where we have different perspectives of the ‘I’. (Thompson, 2014)
individual self and create a personality (Erchak, 2006). Complementary, social anthropology identity and ‘selfsameness’ are not only about looking inwards but also explicitly looking outwards, which means that connecting one’s sameness (‘I’) with others brings forth a consciousness of sharing specific characteristics (e.g. language, culture, beliefs, etc.) within a group. As a result, ethnic identities are formed, which are emerging from the consciousness that made up a group’s identity. So, it seems there is a contradiction in the term identity, looking at yourself to create an identity but also looking at your group (or culture, some would say) to create an identity. However, Psychologist Erik H. Erikson combined the two: “The term ‘identity’ expresses such a mutual relation in that it connotes both a persistent sameness within oneself (selfsameness) and a persistent sharing of some kind of essential characteristics with others” (Erikson, 1980, p.109). It is a duo interpretation that co-exists together, creating the ‘I’, showed in Figure 2.

During meditation, one has to deal with both the self and the I, represented in Figure 3. It could be argued that the ‘I’ is part of the self if we look at how the terms are used in common language. Although, in this case, it is more clear to keep them separated to show that they can be viewed separately. Here, the ‘I’ is more concerned about nurture, sociology and ethnicity where the self is more a quest or journey, as explained above. It is comparable to the question of nurture vs nature. What is ‘given’ to us, and what is developed within us? Either way, the two are combined and come together when we meditate, forgetting the past and the future and focussing on the human being that is now.
IV. The Mind and Body Junction

This part addresses two more perspectives on how to look at a form of complete self during meditation, namely the relation between the body and the mind. To try and understand what it means to be, we could look at the legacy of philosopher Rene Descartes and address his philosophy. His famous words ‘I think, therefore, I am’ (‘Cogito ergo sum’) describe his thoughts on the matter of existence (Descartes, Principia Philosophiae, 1644)\(^\text{12}\). The look inwards focussed on human consciousness, which resulted in the idea of the core of being. That leads to the notion that mind and bodies are distinct. Descartes believes that thoughts cannot be taken away because we need our mind to construct existence (Descartes, Metaphysical Meditations). In his eyes, even bodies are perceived by the self (or soul) alone as “I can perceive my own mind more easily and clearly than I can anything else” (Descartes, Meditations On First Philosophy, 1996, meditation II). This intellect (or mind) is something within everybody's existence, which humans cannot deny\(^\text{13}\).

Even in a more modern perspective, there are different understandings and methods on how to unravel the questions of the mind. For example, there is a more physical understanding of consciousness and mind. Philosopher David Chalmers\(^\text{14}\) has a physicalism view upon the matter of mind. This creates a problem where explainable ‘easy’ features of the mind (such as the integration of information by a cognitive system) are creating a gap between unexplainable ‘hard’ features (such as "Why does awareness of sensory information exist at all?"). Understanding the mind as a functional machine would not give answers on why it does what it does, but will eventually bring us closer to ensuring that question, according to David Chalmers (Chalmers, 1995).

Besides these physical perspectives, there is a more biological perspective of the mind. According to John Searle\(^\text{15}\), “we need to overcome the philosophical tradition that treats the mental and the physical aspects as two distinct metaphysical realms” by looking at the neurobiological problems of consciousness (Searle, 2000, p.1). Searle thinks that we do not understand the mind because we do not

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\(^{12}\) Rene Descartes used a different method to understand humankind and what it means to be back in the 16\(^{th}\) and 17\(^{th}\) century. His method, however, was to look closer to himself. He turned inwards and questioned everything that was not him and therefore came with the phrase ‘I think, therefore I am’. He, thereby, laid a foundation for continental rationalism. (Blanshard, 2016)

\(^{13}\) There are many references and translations for the work of Descartes. I assume that the Soul, the Self, the Intellect and the Mind are used to describe his theory and are therefore similar or even the same in the eyes of Descartes.

\(^{14}\) Chalmers is a supporter of naturalistic dualism. His famous article with Andy Clark (1998) start with the words: ‘Where does the mind stop and the rest of the world begin?’ He is one of the founders of with this dualistic perspective of consciousness. In his work, he tries to unravels “the hard problem of consciousness”, which prevents science from being able to give an explanation about consciousness. (Clark & Chalmers, 1998)

\(^{15}\) American philosopher John Rogers Searle is best known for his contributions to the philosophy of language and the philosophy of the mind, and his contribution to the concept of “social reality”. He argues that all forms of consciousness are caused by the behaviour of neurons and are realized in the brain system, which is itself composed of neurons (Searle, 2004)
know how the brain works completely. First, we would have to understand and connect the ‘material’ brain fully before we can make claims about what it does.

As the last example, there is this a more social perspective of the mind. The idea that the mind only functions or exists because of its social environment and how the situation is perceived (Dennett D. C., 2003). Founder Daniel Dennett wrote: “all varieties of perception, thought or mental activity is accomplished in the brain by parallel, multitrack processes of interpretation and elaboration of sensory inputs” (Dennett D. C., 1991, p.111). As if we first filter and translate everything that comes into our mind, before we do something with it. This implies that there might be a raw mind, but that it is always influenced or interpreted by real-life events.

These three perspectives show that, as well as the self, the mind is not wholly defined, let alone understood. There are many different angles on how to tackle this, and I think that combining them will eventually, step by step, bring us closer to an understanding. For now, Figure 4 shows that the mind is bringing forth a consciousness and that this consciousness can be interpreted by physicalism, biology, psychology or sociology when focusing on why we have a consciousness at all. Especially for beginning meditators, the mind and consciousness is not something quickly tossed aside or forgotten during a meditation. In more profound levels of mindfulness meditation, one can observe the mind and be aware of the consciousness that is.

According to Daniel Dennett it is the task of philosophy to negotiate between two ways of describing the world: in terms of our everyday experience - the world of chairs and tables - and in scientific terms - the world of quarks and atoms. He raises the question whether one could be described as more ‘real’ than another? His cognitive science background gives him inspiration for his philosophy of mind that is grounded in empirical research. (Radboud Universiteit, 2016)
Looking at the later meditations work of Descartes, he is also convinced that there is a specific way of how two distinct things live in one entity. He has the idea that the mind and body somehow form a substantial union within human limitations. Here, the body is something materialistic, while the mind can be seen as a non-materialistic substance. Nature has taught Descartes that sensory perceptions form a junction between body and mind, where they function as a complex and intertwined operating single unit (Descartes, Metaphysical Meditations). He concludes that the self, however, has primacy over the body and that being a thinking being is the nature of humans. Figure 5 shows that the body is located in the material realm because of its substance. Furthermore, the body is firmly understood by biological terms and is seen as the human expedient for detecting sensory perceptions. These perceptions are ‘sent’ to our mind, always connecting the two sides of Descartes struggle, namely the mind and body junction.

The idea of a junction between the mind and the body is powerful. However, this kind of terminology is risky due to its - metaphorically speaking - ‘short crossing of roads’. Instead, it is that junction which can be seen as the core of what it means to be alive. Clarifying; it seems that both mind and body have their characteristics and functions, which make them two different entities. However, they are operating as one entity in a human being. This seems to contradict to Buddhism with its belief in reincarnation and afterlife. Still, it can be said that along the journey of meditation, a human is one entity with your body. I claim that especially in moments of meditation, this mind-body junction plays an important role. Therefore, we must not forget to include the body as an element of this meditative core, as portraited in Figure 6.
To summarise, I claim that the junction between body and mind is what is enlightened when meditating. First, we need to look at what the mind is doing at the moment of meditation, and second, what the status and stimuli of the body are in this moment. It does seem that overall meditation is a mental practice, but I strongly assume that environmental stimuli speak to the sensory experience and therefore, this junction between mind and body is activated. That would also indicate that a different environment and different external stimuli will influence the practice at hand. In the next part, I will elaborate on this idea that the junction between body and mind is what is enlightened when meditating.

V. The Meditation Subject

From now on, I will adopt that view of a duo interpretation of the self during meditation. It is not only about the ‘I’ at the moment, but it is also about all the above. The self and the ‘I’ are connected with the mind and the body, which is like the idea of a person being a multiple interdisciplinary network. So far, we have seen that there are different foundations for the self, a static view and a more dynamic view. Also, we can separate the I from the self because anthropological and sociocentric perspectives have shown us that the self is not the only thing responsible for self-identification or identity. Instead, surroundings, culture and ‘sameness’ of a group play an important role in establishing the ‘I’. Furthermore, there is the mind and body junction, which also plays a vast and almost more empirical role during meditation. Altogether, we can create an overlapping moment in which the self, I, mind, and body come together. Therefore, one comes across all four aspects as a collaborating unity during a mediation, schematically depicted in Figure 7. It is an intertwined network of different religious and philosophical issues that one needs to investigate and understand to grow in the journey of meditation. To reach self-understanding as a step to nirvana, these four elements could be of use. If looked at only

![Figure 7. Model of The Meditation Subject - a representation of collaborating elements in meditation.](image-url)
body, mind and I, it could be said they are in the realm of I-Making. If focused on mind, body and the self, they are more in contact with an ontological question on what it means to be a human being. However, connecting them shows we are a soul in many forms. We are the idea of ourselves as consciousness, as aware, as our mind and as to how we identify ourselves with others, as to how we grow and how we look at the inner world and our given bodies. This conjunction between self, I, mind and body are where the focus lies in meditation. It is asked to look at yourself from an inside perspective, connecting the outside. Meditation means using all your senses and your body, connecting them with mental power, letting this conjunction speak for itself. The idea that the self during meditation is shaped through all these different theories and perspectives forms a new standard or framework. In the next chapters, when speaking about the self during meditation, the Meditation Subject is meant as a starting point.
Chapter 2
Meditation and Technology

Technological surroundings and their function within meditation practices.

In the previous chapter, we have learned what meditation is and what could happen as a perception of the self during meditation. In the last decades, technologies are invited to meditation practices. In this chapter, we will turn towards the more modern practice of meditation through the question: Why do we surround ourselves with technology during modern meditation? First, I will turn towards the question of what the reason is why meditation has gained so much traction in modern western society. I will look at the causes of what makes people turn toward meditation and mindfulness, the effects of these causes, and if the solution (meditation) effectively helps. Next, I will make a case in what way we use technology to assist during meditation. Here, I will reach back to Buddhistic ideas and how these are now fulfilled with the use of technology. This chapter is therefore like a bridge between meditation and technology, needed before we can say something about meditation, the self, and technology.

I. Meditation in the Modern Society

The 21st century is a time in which everything moves extremely fast because of how people, communities, and networks innovate, communicate, create technology and trade knowledge. This technological globalisation creates a living environment in which efficiency is key. This also means that the workload has risen together with stress-levels. This high workload in combination with everyday activities, communication and technologies ask for our constant attention or the so-called ‘always on’ culture. This creates what is called the “health epidemic of the 21st century” (Step Jockey, 2018). The increasing stress levels count for many people on different levels of society. It is almost a disease that slowly creeps in, and (sometimes) leaves behind disastrous results. Burnouts and depressions are frequently associated with high-stress levels, and a drastic change in behaviour is needed to get rid of it or become ‘healthy’ again (Lloyd, King, & Chenoweth, 2002). On the other hand, sometimes we learn to deal with stress in a way that we can adapt to it or use it to perform better. However, this is not for everybody, and most of the time, stress leaves people emptyhanded and worn out. The downfall of the ‘always on’ culture is that people get tired of comparing oneself to one another all the time while being on top of the workflow. The effect is that people, while being occupied and stressful, somehow disengage with how they feel, what they want to achieve in life and who they imagine themselves to be. This makes them fatigue, restlessness or even depressed (Mayo Clinic Staff, 2019). It can be seen as if
the mind and body are on different paths while the self is forgotten, and the ‘I’ is almost to bluntly created by this fast technological society and social media. It is as if the term ‘self-deploying’ has shifted from taking care of yourself towards taking care of the things that one stands for like careers, hobbies or interests. A side effect of the fast uprising technologies is that it creates an environment in which we place themselves in limitations, thereby disconnecting from the core, which is caused by stress.

Demonstrating and discussing stress has awakened another discussion on what a ‘healthy’ lifestyle would look like. Unsurprisingly, this includes anti-stress practices and exercises. Not only psychologist, clinics or doctor recommend mediation and mindfulness as a solution, but it is also beginning to dawn on all the people that being healthy and happy means creating a change in behaviour towards a more mindful thought process. Therefore, the question arises: What is it in mindfulness and meditation that is so useful and important for decreasing stress symptoms? During meditation practice, one can learn the ability to sustain attention on a single object and the ability to be openly aware of the feeling or experience, without suppressing anything that arises. Disengaging from the fraught or threatening of the thought could be revealing for the mind. This is the reason why mindfulness practices are often used as a method for stress relief and why they have been more popular in Western culture in the last decade (Harrington, 2012). Being practised in mindfulness can be helpful because of these therapeutic forces. According to Kristeller, this happens in four different stages to affect the stress response (Kristeller, 1999). First, metaphorically speaking, mindfulness gives human senses their freedom back from whatever is pulling at them, which results in a break from these senses. Second, the practices provide a method to observe occurring responding- and reacting-patterns. Third, as mentioned above, conditioned responses or reactions towards the occurring thoughts can be disengaged or be weakened. This is also called uncoupling and brings us to the nest and last stage. Fourth, due to this uncoupling, the responses to thoughts can be more integrated, ‘wiser’ or even distinct. This causes a more effective reaction on our mind and is thereby useful for a wide range of impacts like physiological relaxation, spiritual awakening or a mindful life. The wise decision or reasoning can be put to good use at moments of high pressure and a lot of stress. The ability to let go of dense thoughts or the ability to let go of strong opinions can be illuminating for the mind. Although the practice of meditation starts with a cognitive process, it is also the body that reacts to its techniques. Sitting quietly, disengaging the mind and decreasing the speed and length of breaths affect the heart rate and blood pressure (Cuthbert et al., 1981; Benson, 1975). Besides, clinical applications, together with research and contemporary psychological theory, show that there are other effects, both initial and intermediate. The previously mentioned effects of mediation on stress are packed in six domains of mediation shown in Model 1. Cognitive, Physical, Emotional, Behavioural, Relation to Self/Other and Spiritual (Kristeller, 1999, p.398).
The effects are all helpful for reducing stress symptoms. The ability to focus (cognitive), the awareness of breath (physical) or sense of self (relation to self) are initial effects, while effects as decreasing ruminative thinking (cognitive), pain control (physical) and empathy (relation to self) emerge with more practice in an intermediate development stage. This study shows that, with practice, physical symptoms are uprising or downscaling.

If we look at Model 1, the vertical lines show us the different domains of operating effects. The horizontal lines are implicating on which level of ability specific effects occur in the stage of development, and they are dotted because these lines are not entirely fixed and could differ per individual. This model shows us what mental and physical effects occur when training the mind. Therefore, this model can also be seen as a representative of some physical limitations.


This study shows that there is a connection between mental practices and physical effects through the different stages of meditation, for example, breath control or anxiety are symptoms immediately affecting the body (Lum, 1981). Besides, the six domains seem similar to the four elements set out in the first chapter. For example, the cognitive domain to the mind, physical domain to the body, emotional and behavioural domains to the ‘I’ and relation to self-domain to the self. The spiritual domain is a crossing of all the elements while meditating. This indicates that the four elements are present in mindfulness and meditation, and are all identified in different effects of the meditation. In other words, by practising meditation, one brings all elements together, instead of letting stress take over and let it drift apart. This research shows that during meditation, all four elements show a specific effect and that connecting them makes sense during the meditation.
To sum up, to prevent the - metaphorically speaking - dispersion of element caused by stress, it seems logical to turn towards mindfulness and meditation practices. These practices create a strong foundation for one to ‘find’ themselves again, connecting all elements. Both physical and mental symptoms of stress are reduced by meditating, making it the perfect solution for the ‘health epidemic of the 21st century’.

II. Assisting Technologies

The previous section showed that people are in desperate need to get de-stressed due to the workload in their everyday lives. A solution to this case seems to be the engagement in meditation and mindfulness practices. Therefore, the awareness of doing meditation practice is rising and, thereby, new habits and rituals in daily routines are slowly rising. As a result of this, the resources helping the meditation likely need to be easily accessible and efficient in use. This could be why many daily practices of meditation and mindfulness in western culture arise throughout easily accessible platforms like (social) media and applications on mobile phones. This does not only help to spread the awareness on meditation, but it also shows current effects and examples of how to do it correctly. There are different methods and techniques to fulfil meditation practices or lessons, which are dependent on location-, time- and group-factors. The most common practice is that of sitting or lying still with eyes closed focusing on a physical aspect such as the breath, hands or abdomen. Meanwhile, thoughts will appear, and it is up to the meditator to acknowledge the thought and thereby try to uncouple the conditioned reaction to the thoughts. We learned that the acceptance of these thoughts and feelings clarifies the mind, leaving room for other aspects to arise. Sitting or lying is not the only option in meditations; there are also walking, working, or travelling meditations. In these cases, the meditator does not sit still, and they experience environmental stimuli and physical perception instead. This is often seen as a more advanced practice. Thus, there are different factors present that could influence the quality or flow of meditation. Some of these factors are technologies that enhance meditation; others could operate against them. These technologies variate a lot in their application, depending on where the meditation is located. In Figure 8., a representation of possible (technological) factors influencing the meditation is shown. There is a small distinction between electricity-powered technologies and unpowered technologies. In this section, the focus lies on electricity-powered technologies because the unpowered technologies have been part of the meditation for a long time.
In Figure 8. we see four different groups of surrounding stimuli that could be part of the meditation. These four categories can be explained as follows:

(A) Environmental technologies

There is always an environment while meditating, whether this is inside, outside, in nature or at home. Some settings bring environmental technologies with them. Inside there is, for example, the lights in a room, the heater or cooler in the corner dealing with the temperature, sounds coming from a speaker or tv and other technologies influencing the atmosphere and setting of the place. Part of the environment is the meditation equipment like pillows or yoga blocks used to make the mediation more comfortable. Meditating inside means one is more in control of the surrounding then meditating outside, where surrounding stimuli is considered more random.

(B) Technological artefacts

Besides technologies connected to the environment, there are also technologies more connected to the person. There are, for example, mobile phones, touchpads or headphones. Some of these fall in another range of wearables like clothes and shoes (C) but this is balancing on the thin line between powered and unpowered technologies.
(C) **Technological Wearables**

This category is technological wearables one can wear during the meditation. Smartwatches or endorsing clothes are used to capture or re-evaluate meditation. Technology is introduced to create well-fitting wearables to collect data and thereby give new insights into the practice. This is the technological realm which is closely related to what will be investigated in chapter four of this thesis because it is trying to connect something almost ‘spiritual’ with hardware and software technology. Many different layers could be encountered here, and I will unravel those in the case study in chapter four.

(D) **(Technological) Social Connections**

Next, there is the presence of other people who are doing or guiding the meditation. This is not to consider people as technology, but they do have an impact on how meditation is perceived. Besides the general idea that people differ from each other universally, within a mediation, different people have different roles as well. For example, they could be the teacher, the monk, the meditation-guide, the practitioner in the room or people walking by (unknowingly). Besides, they are sometimes presented through technological access. The technology of category A makes it possible to connect with people all over the world. Whether you feel their presence as firmly as in real-person is another interesting discussion, but they are part of the mediation nonetheless.

Together there are all kind of sensory experiences during meditation, the meditator feels, smells, sees, hears and sometimes tastes different things every mediation again, arising from environmental stimuli. However, some incentives can be controlled while others can not. If we turn to the stimuli we can control, we often choose to use the one with the most influence on the form of practice. (For example, is the mediator alone? With other people? Inside or outside? Sitting, lying or standing and does it come from memory or other resources?) The different practices and techniques could be supported by the help of unpowered tools like books or conversation, or a powered tool like the technological devices at hand which gains information by use of media channels (such as YouTube). For example, as shown in Figure 9., there are online tutorials to follow with the content on how to breathe or meditate at home, or there are spoken or written guidelines on what to do during meditations.

![Figure 9. Example of YouTube meditation video (Soares, 2018)](image-url)
Furthermore, there are music lists and other given information or tips for making the meditation easy and efficient\textsuperscript{17}. The search for the correct practice, time, theme and teacher is contributing to the awareness of meditation and gives an insight into all the different exercises and practical methods.

Besides written or spoken guides, there are technological application or apps which are fully orientated on daily meditations, mindfulness, and how to lower stress throughout the day. For example, the so-called *Headspace* application is a mobile tool which has different meditation practices listed (Figure 10). They all have a different focus point or theme for the lesson.\textsuperscript{18} The app could give positive feedback if a practice is completed (meaning the audio file is completed and not paused) and shows different stats on how many practices someone completed before, or how many practices are in a specific category. There are also long-term courses which give daily notifications for small practices, as a goal for the user to come back to the app every day and fulfil the practice.

Both examples only work if the meditation practices are done in a place with this technology at hand. In the case of the wearables, the type of practice does not matter. With such a technology, it is about how the body reacts to the practices, and this reaction is being looked at and registered, instead of written or spoken guides helping you to meditate. Physical symptoms are translated into digital data, such as heart rate, temperature or muscle movement. They enter the domain of technological embodiment (which is further explained in chapter three) while not entering the domain of giving directions and information, like the videos. Therefore, this technology fulfils another role, since it gives you an insight into how one did the meditation in any regards. This is, of course, connected to environmental stimuli because the practitioner reacts to these during the meditation. However, I claim

\textsuperscript{17} They come in the form of websites, videos, podcasts, vlogs or blogs and are created by experts or enthusiasts with knowledge on the topic, mostly for the intention to share the mediation practices. (Soares, 2018) is an example.

\textsuperscript{18} This could vary from ‘against anxiety’ to ‘how to be grateful’, and it is up to the user to choose what topic and how long the meditation should take. (Approximately, 5, 15 or even 30 minutes.) When started, an audio file is played, literally guiding you through the meditation. Normally starting with a script such as “Welcome, are you sitting or lying comfortably? The practice of today will focus on...” etc. (Soares, 2018)
that the wearable itself also opens a new domain of self-perception, which will be explored in chapter four.

For the purpose of having quick and easy access, engaging with different practices on YouTube or downloading a mindfulness application seem to be the perfect solution. However, not all technologies are easy or ready at hand because some of them need more preparation time to find or are simply more challenging to obtain. Also, not every technology has the same goal when it comes to meditation. On the one hand, there is the goal of providing information for the perfect practice, and on the other hand, there is the goal of registering physical sensory-data and fluctuations to monitor the practice itself. Both are important to work towards the goal of maintaining and obtaining a better health and body-mind connection because they both operate in different realms. Technology is applied to bring the different parts of the self together again during the mediation and refocus the junction between body and mind. At this moment, looking at the technology that is implemented in the environment is important, however, looking at technology that also interacts with the body seems even more relevant because they provide data we otherwise could not encounter.

This chapter showed that efficient and ready at hand technology enter the realm of meditation because the technology is seen as a health-enhancing method. The model by Kristeller showed a representative of some physical limitations and occurrences, which are brought forward by meditation practices, reducing the high level of stress for the practitioner. There are different levels when it comes to interaction with technology during the mediation. To explore their differences, I need to know how technology mediates humans in their daily lives. How is the world shaped through the lens of technology and how does this apply to everyday activities and technologies? To answer this question, turning towards the theory of technological mediation seem to be a good fit. After understanding this post-phenomenological theory, which will be explained in chapter three, we can turn towards how technologies shape the perception of the self in chapter four.
Chapter 3
Post-phenomenology

Understanding the philosophy of technology by the theory of post-phenomenology.

In the second chapter, we learned how and why technologies are used during meditation practices. The next step is to look at what the use of technology can do for the interpretation of the self. Before answering the main question of the thesis, an understanding of how technology mediates in our everyday life is requires. For this purpose, I turn towards the philosophical theory of post-phenomenology. The term ‘technologies’ allows for different definitions and refers to a large and ever-growing range of human creations. I will look at them the same way as they were explained in chapter two, being in the form of electrically and non-electrically powered artefacts. I will explain the post-phenomenology perspective of technology, where the focus lies on the use and the design of technology in everyday life. Post-phenomenology theories show how technologies mediate the human connection to the world around them and frequently operates in the empirical realm of science. This can give an insight into how technologies mediate the way humans perceive the self. This ‘empirical turn’ in the philosophy of technology is needed to see how technologies are always embedded in a social context (Kroes & Meijers, 2000). Even if there are other methods for analysing technologies, this method gives an understanding of what is happening ‘now’. Thereby, it provides a more directed focus on technology in use. It seems promising to use a method which is focussed on everyday interaction with technology to understand what technology does for the self during meditation. This is because it gives us bordered limitations of what we can expect. Meditation practice is something which can be done every day, and we do not know the impact of technology during the meditation for the self. Post-phenomenology is applicable for the connection to everyday technologies. That is why the theory of post-phenomenology is explained in this chapter.

I. The Theory of Post-phenomenology

The key idea of phenomenology is that we should understand the world in terms of the relations which humans have with it. As post-phenomenologist and philosopher Peter-Paul Verbeek explains, it is about the worlds intentionalities\(^\text{19}\). Intentionalities and relations are always interlinked with or directed towards the world around us. Phenomenology tries to take that as a starting point, having everyday

\(^{19}\) Such as that we cannot just hear, but we hear something or that we cannot just dance, we always dance with something (Ihde & Verbeek, 2018)
experience as the basis of other things (science, data, etc.). Though the roots of post-phenomenology are located in phenomenology, the practice is more focused on the technological impact or influence in the twenty-first century. It looks at historical aspects of technology, technoscience, and technological artefacts and thereby interferes with the question of how technology shapes the human world and existence. This theory has risen because one of the founders of post-phenomenology, Don Ihde, wanted another perspective\textsuperscript{20} on how the world appears to humans. He wanted a philosophy on technology where there are experiments one could do to understand the relation with the world. According to Don Ihde, the Heideggerian perspective of technology as ‘a means to an end and a human activity’ (Heidegger, 1977) did not fully cover the complete understanding of human relations with technology. Ihde wanted to approach the world and its technology in a manner of what appears to you (the subject), instead of questioning why technology as an overall agitation is oppressing us\textsuperscript{21}. According to Heidegger, the most severe danger is located here, because every attempt humans do to develop an alternative interpretation of the world is still part of the first technological framework which was built by technology and designed by humans. So, not every attempt will break loose from this frame. Instead, every attempt to design a new understanding of the world throws you back into the beginning definition, being that the world is what humans make of it. According to Heidegger, the only way to overcome it is turning towards more mystical things like the ‘will not too will (non-willing)’ or ‘lettings things be (Davis, 2007)’, which seems exceptionally similar to specific core values of the mindfulness meditation. Examples of these core values are the idea of letting thoughts be and listening to the state of your body without the will to change it or the will not to will. In Heidegger’s philosophy of technology, being is defined as the interpretation of what it means ‘to be’, which changes over time and which is always present at the background of human relation with the world. It could also be defined as the ‘happening of coming into being’, the event of revealing which occurs continuously, but which is not always noticed and thought of (Verbeek, 2005). By adopting this idea, we can see how to interpret the four elements of the meditative junction in chapter one, seeing it as ‘a coming into being’ paired with technology. Another way in which Heidegger shows us that technology influences how we see ourselves, is that we often work in an auto-pilot mode. He calls this mode present-at-hand, where our environment has inculcated the idea on how to use things. Thereby, it is very hard to detach the presumptions of how something is supposed to work. During this auto-pilot mode, we are only concerned about what is presently going on. This emphasis on the present, thereby forgetting the past and future, distracts us from making

\textsuperscript{20} Up till now, theories led by Martin Heidegger highly influenced and framed most of the perspectives on how humans saw their relation with the world and the technology in it. (Ihde & Verbeek, 2018)

\textsuperscript{21} The view that predominates in Heidegger’s work is that of the human being an observer of the world which is ‘out there’ and, therefore, being a thing (technology) is a source of ‘raw’ material that is there for humans to manipulate. Here, technology is the basic framework in which humans interpreted their worlds with themselves in it. As if the world is only appearing to us in the form of what humans make of it. (Future Learn)
authentic decisions. This idea is very similar to meditating, where the meditator is detaching themselves from the auto-pilot mode, trying to focus on what is presently going on and cease to care about what gave rise to conceptions. Phenomenology thus shows us that intentionality’s help us capture our world and therefore ourselves, whereas post-phenomenology shows us how we capture ourselves in the form of techno-social network. So now, with meditation practices and technology, we do not only try to understand the relation to the self, but also bring together two philosophies of technology.

II. The Role of Post-phenomenology

The post-phenomenological mindset is not afraid of technological alienation since, according to this theory, technology shapes our relation with the world instead of alienating us from it. It is a way to understand technology as things in a world around us, as it is affecting human behaviour and thereby shaping a relation with the world. Verbeek explains this by analysing the structure of the interactions that human can have with technology. Post-phenomenology is in contrast with the transcendentalism of the classical philosophy of technology because, in this theory, the worlds of human beings and technology are not divided into two different camps. At first, that view seems adaptive, because humans are subjective and technological things seem more passive objective. However, post-phenomenology tries to overcome this dichotomy, because the separation of humans and technologies leads people astray if they want to understand the role of technologies in society and our everyday life. It is about the concrete role of technological artefacts in human existence and its connection to the world because we cannot understand the world on its own as it is always interpreted by the one who is looking or who tries to understand. So, we need to blur the boundaries between human and technology to understand its role to the world, and thereby our identity to it. We do not look at technology as a broad and cultural phenomenon or as an apparatus alienating us from the world, but rather how it is used in everyday practices and how human behaviour and human essence is shaping and interacting with them. We need to dig into the transparency and opacity of these technologies and see if there are any boundaries, to begin with (Verbeek, 2011; Ihde & Verbeek, 2018). Some technological artefacts reach beyond borders of being a passive object. For example, computers help us connect with other people, news, shops, foods, studies, hobbies, and work. They do not operate neutrally to us, because they shape and organise how we perceive and experience the world. Immediately, they constitute a particular behaviour with rules and guidelines which are visible as to how we relate to the environment.

In doing so, technological artefacts shape who we are and what the world means for us. They are not in between us and the world, but technology mediates it, so they are part of the framing process. This is what is called technological mediation, and it is breaking the district dichotomy between human,
technology and the world. In a systemic display, an unmediated perception of the world could be visualised as I—World. When we look at a mediated perception, it becomes I—Technology—World.

III. Application of Post-phenomenology

According to Don Ihde, there are several ways to describe how technologies mediate us. The mediated perception of I—Technology—World is taken as a beginning point.

*Technological embodiment:*

The first mediated relation is that of technological embodiment. Here, the I (which is the subject, or in this case a human being) takes technology into their experience, so they almost ‘become one’ (represented with the parentheses in the visual representation). The technology becomes virtually transparent for the user. However, the user has affected the technology because it broadens the area of sensitivity for the user. The world appears different than without the embodied technology, and that is creating a new relation to the world.

A famous example is that of the eyeglasses because people look through them and not at them, so they are easily forgotten (or so-called ‘embodied’). The way we frame the world in everyday activities is influenced by the technologies we embody because they change the way we would otherwise do things. We would, for example, sit closer to a television or school boards, or make font styles appear bigger if we would not have glasses to adjust our eyesight. In the case of the glasses, this embodiment of technology goes so far that we even find ourselves in situations that we feel we have glasses on while they are not exactly there, making the technology almost transparent. This embodiment of technology is fascinating because it connects the physical aspects of technology to our consciousness and our body limitations. Embodied technologies are overwriting certain boundaries and thereby showing how easily our minds can adapt to technology, influencing its environment and limitations.
Hermeneutic relations:

The second relation is the domain of hermeneutic relations, in which technologies let us understand more (or different) aspects of the world around us. The arrow means that humans are involved with the world through (or via) the technology. These technologies show us representative information that humans first have to interpret in a specific manner for it to make ‘sense’ or for it to reveal something about the world. In other words, the data itself does not mean anything. It is the global, mutual, organisational or institutional rules we gave the data that shows its value. Technologies which are providing such data (e.g. Thermometers) thereby influence the behaviour of creating, communicating or organising a system for it to be understood correctly. Therefore, especially in science, hermeneutic technology mediation is significant, not only what we find, but also how we interpret what has been found in the data. Hermeneutic technologies are not transparent because we need to ‘see’ them to interpret them.

Alterity relations

Thirdly, there is the idea of alterity relations, which is about the interactive status of technology. A way to explain it is that humans almost characterise the technological artefact with human characteristics as they relate to the artefact itself instead of via the artefact to the world. (Verbeek, 2001). The arrow here means that we refer to technology as a quasi-other. This quasi-other is connected to the world, but more because it is a material thing instead of revealing something new about the world. This relation is more about the relation itself. For example, blaming and screaming at your remote-control for not working or complementing your computer for finishing a download. The alterity relations we shape with technology make sure that a certain interaction with the technology arises. If we look at how technologies are derived globally, lots of them acquire an alterity status nowadays. And to go further, as humans lay specific human characteristics upon these technologies (e.g. Robots), these alterity relations do ask for specific or new rules, because they enter the domain of emotions and rational human behaviour. This is, however, more the domain of ethics and posthumanism, instead of post-phenomenology.
Lastly, there are background relations. These types of technology attempt to not be noticed, and thereby operate on a background level. The technology has no central role in the human experience and, therefore, could be present and absent at the same time (Verbeek, 2005). This constant shift between transparency and clarity makes that they are not constantly interacting with the subject (hence no arrow), but they are a constant factor if we look at how humans interpret the world (as our behaviour changes if they are present or absent). For example, if the heater is broken, people wear more clothes, whereas they usually would not do that if the heater works. Thereby, we are not always aware of a working heater. The use of technology disappears to a background level of technological mediation if they work, implementing themselves in this built network of human-technology relations.

Many technologies are not fixed to one category. They are interdisciplinary and are applicable on many levels, the same way as the cube in Figure 11. is in Don Ihde words ‘multi-stable’ (Verbeek, 2005). The cube appears to be three dimensional with different perspectives (seeing the bottom or seeing the top), but could also be perceived two-dimensional as a labyrinth of lines and is, therefore ‘stable’ within different perspectives. This example implies that already all perceptions humans have about the world are mediated because we perceive the world with different interpretations (different ‘stable’ perspectives). However, Ihde claims that if we can be certain of this multistability, we can still look at what role technologies play and how to define their mediation. Therefore, in his work, something like a ‘naked perception’ is not the truth or naked reality about the world, but rather a relation with the world without interference or shaping of technological mediation (Verbeek, 2005, p.125). This idea of multistability shows that there are configurations of human and technologies that are expanding the boundaries of the four categories. For example, humans have created technologies with smart environments and ambient intelligence, self-driving cars and brain implants for deceases. This means that the lines between these domains become opaque, bringing forth the opacity and transparency of human bodies and their environment. This is because of the interactive context and shaping of behaviour by technological mediation. Indicating that, on the one hand, we have technologies that help us with our actions and practices in the world, and on the other hand, we have technologies that show
us a different perception and experience of how to perceive the world. This distinction shows a
difference in how we organise our lives and how the world becomes meaningful to us. Technological
mediation thus brings forth many different implications. According to Verbeek, it means that our
technologies are involved in virtually any dimension of society and human existence (Ihde & Verbeek,
2018). Therefore, they mediate our knowledge of the world, the ethical questions we ask ourselves and
our answers to them. In Verbeek’s perspective, we need to be aware of this technological mediation so
that users, designers, and policymakers can cooperate with the responsibility of the impact, moving it
towards a more moral and ethical discussion, by other means. Here, I do not want to go into the ethical
discussion.

In this chapter, we have explored how technologies change the relation to the world around us and how
we can interpret those relations. What is unresolved is the question of how these technologies affect
our relationship with ourselves; this is analysed in the next chapter.
Chapter 4
Self-phenomenology
The new perspective on how to perceive the self with technology during meditation.

In the previous chapter, we saw that technologies mediate our world-perspective on many different levels. In this chapter, I will first shape a new understanding of the mediation relations with technology to answer the question of what the mediation between technology and the self brings forth during meditation. I will go deeper into this new relationship and how it could enlighten the idea of the self mediated by technology. After that, I will put this idea to the test by analysing it with a case study. This case study involves the Silence Suit, a wearable technology used during meditation, which makes it possible to record certain physical elements and data during the meditation. The suit is worn during meditation and, therefore, categorizable as a technology influencing the meditation experience. This case study shows how technology, with a post-phenomenology perspective, can reshape, effect or change the relation with the self.

I. The ‘I—Technology—Self’ perspective explained

In post-phenomenology, mediation theory shows that technologies influence the way we perceive the world. This influence is shaped by how far we stand away from technology or on what level it operates. Besides the four categories of post-phenomenology (embodiment, hermeneutic relations, alterity relations, and background relations) of technological mediation (I—Technology—World), other relations are possible as well. Every technology brings a different phenomenon into the light, which is in their way - ‘multi-stable’. These other relations are defining the overlap between the categories or shape different interpretations of the I—Technology—World structure. They are showing new ways of how humans interact with their world through the use of technology. When turning towards the topic of meditation and the Meditation Subject, technological mediation is present here as well. At first, the Meditation Subject is connected to how meditators feel inside. As mentioned, the Meditation Subject (Figure 7) connects possible mind and body characteristics and boundaries. It also influences how we communicate to ourselves and how we observe ourselves from within, shaped by how we perceive the technology and how the meditation happens. Although the

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22 An example is the pacemaker. This device seems to arise an embodiment relation, but at the same time it does not show us anything about the world, only that the heart keeps going. Thereby it enters a new realm of posthumanism and the ideas of technical human enhancement.
mindfulness practices taught us that letting go of strict thoughts also means letting go of particular conceptions about the self, I allege that we cannot wholly distinct our self from the technology present within this realm. This distinction is all made during meditation, and as shown in chapter two, this mindful way of understanding the self is infiltrated by technological relations. The relation we build with ourselves through the mediation of hermeneutic technologies, background technologies, alterity technologies and even embodied technologies al play their role during meditation and thereby also on how the practice is received.

I will impose a new structure for the specific understanding of the Meditation Subject and technology because there is another end-goal where people no longer only look at how to perceive the world, but also at how to perceive the self. In this thesis, the technology is operating in the realm of the self, which creates a new structure as a better fit for analysing this phenomenon. Therefore, I propose a new arrangement of I—Technology—Self, shown in Model 2. Here, the ‘I’ is replaced (or complemented) with the Meditation Subject. Together with technology, they create a new perspective on how to perceive the self during meditation. A human being shaped and formed by technology while being in a ‘deeper’ and ‘spiritual’ state of being. Concluding that - borrowing the structure of Peter-Paul Verbeek - ‘the intentional relation between human beings and the perception of the self is thus, as it were, extended or stretched out through technological influence’ (Verbeek, 2005, p.125).

When taking the four elaborated technological relations into account and applying them to the theory of how we perceive the self, different insights come to light, which will be called the four categories of self-mediation from now on.

First, the embodiment of technology is now shaped as I (Subject) and technology looking at the self. This form is close to what was described earlier, namely that the self can be shaped because of this connection to technology during the mediation. This connection increases the awareness on the Meditation Subject and its four elements (mind, body, I and self) because some of those elements will rise more to the surface or become less transparent than others. Although never spoken about the possibility, the junction between mind and body could suddenly be out of balance. For example, the awareness of the body becomes bigger than the awareness of the ethnicity background. However, what part of the junction comes forward most depends on the technology that is implied. Nevertheless, the Meditation Subject is mediated by the technology creating a new perspective of the self.

Second, there is a relation with the self only through technology. This hermeneutic relation could be described as if we would merely perceive a self if this self is mediated by technology. So, without technology perceiving the self would not be possible. This is almost as if the technology defines who you are. For example, in the previously used example of the pacemaker, the technology helps you being alive and be able to perceive a self. Thereby, the pacemaker almost becomes part of the self. This – almost- cyborg relation with the self could be eye-opening for prospective research on how people react to technological medication, tools or prosthetics.

Third, there is the idea of alterity relations. This seems rather close to the hermeneutic relations above, but this structure is less turned inwards and more turned outwards to the world, almost like creating a new or second self through the explicit use of technology. An example is how we portrait ourselves online, using technological solutions to create an image of the self, which is not a complete version but is indeed part of the multistability that could be possible.
Last, there is the structure of the background self, which can be understood as seeing into the fourth elements of the Mediation Subject. Here, the focus is on the Meditation Subject, and thereby the technology disappears into the background only to sometimes appear and shape the self. This interlinking of technology and the self is present and absent at the same time and thereby really hard to pinpoint, especially during meditation when the focus is mostly on the Meditation Subject. More advanced meditators are probably better at this because they have more experience of coupling and decoupling their thoughts and surrounding. We saw this in the model of Kristeller, but Monks or practitioners will acknowledge the same (Kristeller, 1999) Concluding, technology emerges from different perspectives on how to look to the self. These perspectives suggest that the intentional relation between human beings and the perception of the self is extended or stretched out through technological influence. In other words, it is as if the technology becomes part of the self. The four categories by post-phenomenology seem to create a different role when they are turned towards the self. The (above mentioned) groups could be called the categories of self-meditation, and show us what impact technology can have of on how to perceive the self. What is still not clear is how these categories of self-meditation operate precisely. What effect do they bring and how can the mind and body connection be described here? To find those answers, I will turn towards a case study of the Silence Suit. This wearable technology is used to measure physical data during meditation. Therefore it operates in the realm of the mind (meditation) and that of material surrounding (technology).

4.1 A Case Study: The Silence Suit

I. Technical Information of the Silence Suit

The next part will compare the given ideas on technological mediation of the self during meditation with a technology used there. This is done by a case study of the Silence Suit, created by Danielle Roberts. Artist and designer Danielle Roberts developed a tool to collect personal physical and environmental data during a meditation. She created the Silence Suit with thirteen sensors, which are collecting and saving data throughout the meditation. The different sensors are interlinked with the fabric of the suit, creating a wearable technology as displayed in Figure 12. The thirteen sensors measure physical indicators like heart rate, breathing, posture, muscle reflection (neck and bottom), skin temperatures and density and surrounding indicators like wind, room-temperature and light density. The role of the sensors is to indicate how the practice is going physically, for the sake of comparing different datasets
to see if any external changes can be made to improve the meditation. The data is collected and saved by a special programmed pc or laptop programme and is re-visitabile after the meditation. The only live feedback during the meditation is a flickering green light showing the suit is on and connected (not connected gives a red colour) and showing the pulse of the heartbeat. In the end, the collected data can be displayed in different graphs, and someone can compare different meditation sessions with each other to see if there are significant fluctuations. An example is shown in Figure 13.

Before one can turn on the suit and start recording the data, the programme asks for a questionnaire to set the intentions of the meditation\(^{22}\). After the meditation, a second questionnaire provides questions leading to information on how the mediation was experienced\(^{24}\). Danielle Roberts included these lists for research purposes. The first prototype of the suits was used to see if changes happened in the meditation if different lights and colours were projected in the room, using a Philips Hue Light. Roberts hypothesis was that different colours would help to deepen or perfect the experience of the meditation, visible by the physical data. Roberts altered the idea that a written algorithm would find a pattern in the data, used to change light intensity during meditation to help the experience. For his cause, artificial intelligence can be used to scan all the existing data to find new patterns and adjust specific intensities of light during the meditation. What is important here is that she wanted the system to find a particular trend which could be seen as the ideal way of perfecting the meditation, instead of giving those variables and values herself. However, (so-far) the collected data did not collaborate to one

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\(^{22}\) Intentions of meditation could vary immersible. Danielle Roberts linked a Philips Hue Light to the meditation that is a reflection of different intentions. The questionnaire also asks about the mental stage of the user. (see Appendix C)

\(^{24}\) Here, questions about the differences between attention-span, distractions, clarity of mind etc. are asked. (see Appendix D)
specific trend and uploading all the different sensors would be too much for the used equipment. Still, collecting the data can be useful as information on how to improve certain aspects of the mediation.

II. Silence Suit Experience

For Roberts, the journey of meditating and using the suit was focused on the enlightening of the mind and to go beyond suffering in a Buddhistic way. She believes in the different ‘layers’ of meditation, and her current goal is trying to deepen hers with new methods provided by Culadasal in his book The Mind Illuminated (Culadasal Yates, 2017). Roberts loves to collect data about regular and daily things, to find possible patterns. The idea of making the suit emerged from putting these two habits together to compile data during meditation practice. Pure curiosity drove the decision to build the suit. The suit gave her enough insights into the mediation to see how she was doing. The suit had to be handmade because she wanted to still ‘own’ her personal data. What is noticeable about the use of the suit is that it takes a certain ritual to put on. Roberts made the suit herself by learning about the technological sensors and parameters, which gave her more insight into the functioning of the suit. Thereby, she is familiar with all the steps that are needed before the suit can be turned on, and the meditation can start. In her experience, the suit has become part of the meditation practices. She noted that the self-perception with the suit slightly diverged from a standard meditation practice because she does feel the presence of the suit. Though, on such a level that the suit is not continually ‘asking’ for attention, which is most likely the case with others with less experience. For example, I tried the suit myself, and I am not an advanced meditator. During the meditation, I was constantly aware of how the suit felt, which aspects of my body were measured, and which sounds or distractions I heard. I felt more connected to my body and environment than during practice without the suit, just because wearing the suit made me active and aware of all these new possibilities. It seemed that Roberts, as a well-experienced meditator, was less affected by this. For example, her breathing is more constant and that she focuses on the mind more easily. For her, the suits tell her how she did afterwards, while almost disappearing during the meditation. She is not always aware of its presence because she is so deep within the meditation. This indicates that one’s intention, but also one’s experience are important factors in how you receive the technology. In the next section, I will analyse this idea even further.

25 An example here is seeing that the breath is high-up in the chest instead of a low-belly-breath could make the practitioner aware of trying to deepen the breath through the stomach next time around.

26 This is more of an ethical discussion on who owns data and when is data generated by your body actually ‘yours’? (Kurzer, 2018)

27 This is shown when the measured data of the practices are compared (see Appendix A and Appendix B).
III. Silence Suit Analysis

We know that technologies mediate how we see the world, but the technology, to a certain extent, seems to change how we see ourselves as well. As explained, the concrete role of technological artefacts in human existence shapes its connection to the world because we cannot understand the world on its own. It is always interpreted by the one who is looking or is trying to understand (Verbeek, 2005). When looking at ourselves, this idea is the case during meditation. Being able to connect the body and the mind on such a specific moment is important for what we think of ourselves and how we perceive the world. In the next paragraphs, the four categories of self-meditation with technology are analysed in the case of the Silence Suit.

Analysing Roberts experience, her interpretation of the self during meditation is slightly different than how it is portrayed as Meditative Subject in chapter one. She strongly agrees with the Meditation Subject and how it is constructed; however, she has never thought about it to such an extent. When it comes to the concept of the self, she thought about the self in a Buddhistic manner, but she also thought that the body did not play the same role as displayed in the Meditation Subject. When asked about whether the suit contributed to the goal of perfecting the meditation during the meditation, she answered that this goal was not completely met. The feedback always comes after the meditation, because the feedback during the meditation (provided by specific patterns collected from older data) did not quite work yet, unfortunately. This means that she could reflect on her meditation, but only adjust changes to the next one, but not during meditation. Additional, the suit did not always contribute to the role of deepening the meditation because of time-related reasons. It is because of the ‘ritual’ that takes up a lot of time to put the suit on, together with connecting all the technology and wires and make sure it fits correctly onto the body. This is time-consuming and not ideal for every location or situation. Also, someone would always need to take time to fill in the forms correctly, beforehand and afterwards. Because Roberts is now learning to lengthen the meditation, the suit is not suitable for this purpose. This conversation with Danielle showed that the Silence Suit displayed a specific user-script. Here, we see that the user-script of the technology almost disengages the goal of the technology, namely that of perfecting the meditation. Other than that, after taking steps to wear the technology, the suit enters a new mediation realm, maybe even an unscripted one. In other words, it could be said that the suit operates in the four self-mediation categories.

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28 This takes approximately ten more minutes per session, whereas the session itself can only take about thirty minutes because of the memory of all the collected data during the meditation. (See Appendix E)

29 A script is something within all technological artefacts and shows that there is certain human behaviour linked and needed to comprehend the technology (Verbeek, 2005). A script is important when it comes to technological mediation because it helps to imply or design how a technology is perceived.
It is starting with the controversies of two categories. One the one hand that of embodiment relation (I — Tech) → World, because the suit is present and worn during the meditation, so there is a certain attachment to the body. On the other hand, the suit is operating in the category of background relation (I(—Tech/World)), because (for Roberts) the suit disappears during the meditation and becomes translucent. Wearing the suit allows it to enter the domain of embodiment. Here, the suit is becoming part of the body-limitations and makes experiencing the meditation differently than without the suit. Still, there seems to be a dichotomy in the way that the suit is embodied for someone who has experience in wearing the suit and ones that have not. If the suit fits perfectly, is custom made or pre-shaped to fit the body, the embodiment of the suit influences the relation to the subject because it ‘asks’ for less attention or could even be transparent (similar to the glasses). At this moment, one could say that having more experienced with the suit causes it from turning more towards the category of background relation. I believe that this shift from present to absent (and embodiment relation to a background relation) is experienced differently for every individual. This shows that the outcome here - turning towards the perception of the self – is mediated by how we perceive the suit.

Then, there is the idea of the self-mediated categories which focus on how the creation of the suit impact the relation between suits and creator, namely alterity relation. The fact that Roberts made the Silence Suit herself means she invested time and energy into the development of the suit. This had an impact on how the relation with the suit is shaped, namely that the suit is more familiar and well-known for her. Therefore, a form of alterity relation is in place (I → Tech (—World)), making the suit an acquaintance. This is also a side effect when frequently using or engaging with the same technological artefact. If we look at what that means for the perception of the self during the meditation, it could be said that this results in a feeling of (mental) support during the meditation. This supportive function gives technologies its value for humans, especially when they obtain health benefits.

Last, the relation can be described as hermeneutic relation (I → (Tech—World)) if we look at the Silence Suit as meaning to an end. In this case, the end consists of collecting data and measuring the values of the meditation. The suit shows us something about the body and the meditation what otherwise would be unknown. However, what does this tell the user about the self? The mere circumstances that the suit gives specific – almost private – information implies this data is unconditionally linked to the person at that moment. In other words, when analysing the data during the meditation (heart rate as the flickering light), an emerging feedback loop present. This feedback loop means that the person is thinking about why the data shows what it shows and that it influences how we continuously adjust
ourselves during the practice. This indicates we have a hermeneutic relation with technology by analysing the given data. This does not only happen during the meditation but also afterwards. For example, a graph showing that a sensor is pressed brings up the questions of what happened and how to interpret the data. In both cases, there is this—almost automatic—connection to our consciousness, trying to explain the phenomenon, which would not have happened if the data would not have been available. By having a constant interaction between the idea of generating specific internal data, the meditator becomes aware of how the body responses to methods and thoughts. This awareness creates a learning cycle that stimulates the meditator to become more self-aware and read the body.

What this part indicates is that there are a lot of different factors playing a role when technologies are added to the mind and body connection. Also, the Buddhistic meditation practice seems to be in danger because the body demands much more attention now. The materialistic characteristics of this technology pull the user towards this worldly realm, even when the meditator is supposed to undergo in a more mindful state. Therefore, it could be said that technology makes this shift from the mind to the body more visible or tangible. In the next part, this conclusion is analysed with the idea of self-phenomenology.

IV. The concept of Self-mediation

The analysis of the Silence Suit shows that the body and the technology both play an essential role when it comes to meditation. The transparency, script and awareness of the technology shape different relations to the self, because the attention of the Meditated Subject is steered into different directions. It also shows that the suit can be seen as a multi-stable technology operating in different layers of the meditation. Not only the suit itself but also the required mindset and dressing ritual influence how we perceive ourselves during the meditation. It adds to an understanding of the self at that moment, but at the same time could distance the meditated subject from its body-perceptions. Nevertheless, the awareness of the connection between the meditated subject and technology provides a new understanding of the self. The presence and awareness forthcoming from the suit could stimulate specific thoughts and behaviour by becoming part of the meditation subject. This could vary per user because they have emerged a different relationship with the technology and have a different background or goal when it comes to meditation practices. This case study shows that, instead of technology looking at ‘the outside’ world, a new perspective is created to look ‘inside’. If we would

30 In Appendix A and Appendix B we see — together with other measurements - the heartbeat of the mediator. This rate is also reflected by the green light during the meditation. This instant feedback loop could make the practitioner wonder why the heart beats with the rhythm that it does.
visualise this, it could be seen as if the arrow to the world is bounced back to a new understanding of the self (envisioned in Model 2a).

Now, instead of looking at the world, looking at the self makes this the gap (or line) between the Meditated Self (I) and technology comes forward, shown in Model 2b.

Zooming in on this gap shows what is happening here and how to connect what is said throughout the thesis. Model 4 displays the following: Firstly, the self is shaped with the four elements playing a role during the meditation (as mentioned in chapter one). Still, within every meditation, the meditator has to find a combination (and intention) that fits best for that moment. That is fine as long as the practitioner is aware that these four different elements are present during the meditation. Secondly, during meditation, the practitioner is linked to technologies. As explained in chapter two, these technologies could be categorised in (A) Environmental technologies, (B) Technological artefacts, (C) Technological wearables and (D) Technological Social Connections. Thirdly, the role technologies play could vary. Depending on the use and goals it is bringing forth or the script picked up by the user. Post-phenomenology showed us four different ways on how to understand technological mediation, which is later linked to how to perceive the self. Model 3. shows the E for embodiment relation, H for hermeneutic relations, A for alterity relations and B for background relations. Combining those assets creates a network on how to understand what relations or links could happen within this gap. Putting
the different part together shows an interlinked system on what happens during meditation practice, calling it the network of self-phenomenology.

Model 4 shows that there are different routes to follow during meditation with technology. For example, in the case of embodiment and background, it seems like the gap between the body and technology is disappearing. However, if we look at it from the perspective of alterity relations or some part of hermeneutic relations, it could be concluded that the gap is more visible. Whether the gap disappears or appears depends on how the meditator perceives the technology and how the script of the technology appeals to the user. It still is difficult to pinpoint what changes, because there are so many options, but a key element is that the awareness of the body does play an important role here. This model relates to deeper layers of meditation but shows that a connection to the body stays intact. Being connected to technology, knowing that your physical data is measured amplifies the mental connection with the physical body, improving how we see ourselves at that moment. A new dimension is enlightened within meditation practices.

Although meditation practices are known as a mental practice, we can now conclude that adding technology to the method makes it a physical practice as well. The role of the junction between mind and body is enlightened and creates new paths to a different understanding of the self. How this is embedded in Buddhistic believes, is yet to be analysed. However, post-phenomenology showed technology is an adaption to be reckoned with.
Conclusion

The goal of this thesis was to investigate the perspective of the self during meditation and how surrounding technologies shape this perspective. To get to this goal, four sub-questions were answered in four different chapters, each leading to a part of the solution.

In the first chapter, a new perspective of the self during meditation was shaped in the form of the Meditation Subject. This model connected four different elements of how - during a meditation - one could perceive the self. It was discussed that the Aristotle perspective of the self could be seen as shaping the self as an interdisciplinary question stretched over different (philosophical) believes. The perspective of the Buddhists and their religion is found necessary due to the focus on the mind and the idea of Zen. The fact that this element is called the self could be confusing because the overall research question is also concerning the self. To clarify, I showed that the self does not only consist of one perspective. There are other factors (named elements) important as well. That is why the ‘I’ was formed (the second element) as a representative of the identity emerged by social-surroundings, ethnicity, nurture, ‘selfsameness’ and I-Making. It was shown that the ‘I’ could be perceived as part of the self but also as an individual element. The third element is that of the mind. Multiple ongoing discussions showed the undefined question on how to understand consciousness. Theories by Chalmers, Searle and Dennett were discussed, explaining the different angles on how to tackle the uncertainties about the idea of mind and consciousness. It is important to keep in mind that science is getting closer to an understanding of the mind, but that there are different angles on how to understand it. Wat Chalmers, Searle and Dennett taught us, is that the mind is connected to the body, but at the same way operates on another physical, biological and social level. The fourth and last element is the body itself. The connection to the body was explained by the theory of Descartes, where it seems that the body is mostly placed within a material realm, separated from the other element. However, I conclude that the body is not placed within this material realm only, especially not when meditating. Here, the body is inseparably linked to the ideas of the self, the creation of the ‘I’ and the understanding of consciousness, because practitioners focus on the connection between the body and the other elements during meditation. Therefore, the central claim of chapter 1 is that the four elements (self, ‘I’, mind and body) need to be put together during meditation because they all play an important role in the overall understanding. I called this phenomenon the Meditative Subject. The idea of the importance of the junction between the mind and the body during meditation became a key element in this thesis. That is why, in the next chapter, the need for meditation practices was investigated to see if there are indeed physical effects on meditation and how humans meditate in the modern age.
Chapter two discussed two different vital aspects. First, it examined the physical effects of meditation practise and how those come to be. Second, it discussed why humans surround themselves with technology during modern meditation practices. This chapter showed that efficient and ready at hand technology enters the realm of meditation because the technology is seen as a health-enhancing method. The model by Kristeller showed that for example breath control and self-acceptance are brought forward by meditation practices. These occurrences reduce high levels of stress for the practitioner, which is often a motivation to start meditating. Technological devices and tools are used to show people new techniques or guidance of the meditation in the form of a) environmental technologies, b) technological artefacts, c) technological wearables and d) (technological) social connections. This chapter showed the link between the ancient techniques and the modern adoption of meditation, namely the use of technological auxiliaries. We can now conclude that efficiency, community and health improvement are the main motivations for why technologies during meditation are used. Thereby, these phenomena showed not only that humans themselves form a link between body and mind by connecting to the technological (material) surrounding, it also gives a more physical approach on the effects of mental stress and deceases.

The third chapter explored the mind-body-technology link from a different angle, with the help of the already existing post-phenomenology theory. In this chapter, we learned that technologies mediate how we perceive the world because using and interacting with technology creates a mediated perspective of the world, and this perspective is our reality. The Nicker Cube example, explained by theories of Don Ihde and Peter-Paul Verbeek, implies that all perceptions humans have of the world are mediated because we perceive the world with different interpretations (different ‘stable’ perspectives). A mediated world is seen as an I—Technology—World structure. Here, technologies are not only ‘in-between’ the subject and the world but transform how this world is perceived. These interpretations could be explained using four different categories of how technologies mediate the way we see the world. These categories are (E) embodied relation, (H) hermeneutic relation, (A) alterity relation and (B) background relation. These categories shape the answer to how every-day technology can influence the perspective of the world. Overall, the third chapter showed that there is a connection between the mind-body and technology directed towards the world. I used this theory as a baseline to see if the connection between the mind and the body during a technological meditation could also be directed towards this framework of a mediated self instead of towards the world. This was done in chapter four.

In the fourth and last chapter, I created the idea that the mediated self is not (only) directed towards the outside world by using technology, but could also bounce back to the inner world (or the self). What
we saw was a revealing emphasis on the gap between the Meditated Subject and technology (or the I and Technology). The gap emphasises the secure connection between the self and technology, and earlier chapters showed that the self is also strongly linked to the body. Therefore, it was concluded that a technology used during meditation could bring forth a new perspective on the body and the self. To investigate this discovery and understand what happens in this gap, I turned towards the case study of the Silence Suit created by Danielle Roberts. The case study showed that there are indeed several options on how to perceive the technology and, thereby, shape a new awareness of the self. What happens in this gap is that technologies are divided into different categories. The categories are valued by the user script and interaction with the suit. The conversations with Danielle Roberts showed that a suit could shift from different categories, and thereby become transparent or ‘exposed’ in a flash. This seems to be depending on how the relation is shaped, what user script is used, and what experience one has with meditation. This case study showed that multiple directions could arise from the connection with technology influencing how the self is perceived. These various directions or interpretations confirmed the idea of multi-stability and on top of that, show the significant role which technologies play for the perception of the body.

After answering the four sub-questions, we can turn towards the main question. Although meditation practices are known and described as mental practices, we can now conclude that this perspective is in danger because adding technology to the practice makes it a physical practice as well. We saw that technologies operate in the material realm and, thereby, make the practitioner have a constant awareness of this material realm, especially for those who are new to the practice. The gap between the Mediated Subject and the technologies show us different patterns on how the technologies work during meditation and how to perceive the self. Here, the practitioner needs to take into account that not only the way we see ourselves is important at this moment but also the way technologies reveal ourselves to us. This could be a challenging job because where does one start now that we no longer have an apparent dualism between technology and the self? I recommend starting at the beginning of this thesis. First answer how you would shape the self, without technology, and what does your body contribute to that idea? Then set a goal or intention for your meditation and then see what technology could contribute to that goal. Then, be aware of the different relations this technology could enhance. Keep in mind that technologies do shape the perspective of the self during meditation because they invite the perception of the body into the practice, making it a part of the perception together with the mind. Therefore, when perceiving the self, we are continually shifting from different views and different self-phenomenological perspectives trying to find that one thought, or not find that one thought that keeps our emotions and healthiness in balance.
I. Discussion and recommendations

From a philosophical perspective, this research could be used as a method on how the self can be understood with technology. It is a method which is applicable in many different branches of the philosophical mindset. It could be used for the philosophy of technology, anthropology, ontology, humanism and post-humanism, technological enhancement and cyborg theories or as an insight for physical, social or biological understandings of the self. Understanding the self with technology within the boundaries of Buddhism, mindfulness or ‘spiritual’ awareness is an angle which has not been done often. That makes this research of particular value. The theories discussed in this thesis are valuable for understanding the connection of the self when using technology during mediation. However, new points of interest and ideas for further improvement were naturally raised when performing this study. These ideas will be discussed shortly to show how this thesis can be of use for new research. Firstly, this research question is explicitly turned towards the design of the self during mediation. We can not only practice mindfulness throughout the day; there are other situations in which self-phenomenology can take place without the need for meditation practice. For example, technological enhancement for the work floor or physical limitations and healthcare are domains in which technological self-mediation could occur. These other situations are not investigated within the thesis, and therefore, could be researched as well. In other words, the explanatory gap in self-phenomenology, which is created within this thesis, is explicitly linked towards the Buddhistic mindset and the practice of meditation.

Another point which could be further investigated is about the Meditation Subject and its four elements. Within this thesis, the four elements (Self, ‘I’, Mind and Body) are all equally contributed and that could arise a big discussion. The way the Meditation Subject is shaped is that overlapping connection of the elements is linked to the idea of meditation, and what aspects of similar theories play a role there. For example, the mind-body junction is very important in this thesis, where other approaches say that there is more of a dichotomy. This will change the perspective of the research and could link new theories together. As mentioned above, the four elements of the mediation subject could all be analysed deeper and further. By connecting other ideas to them, looking at their similarities or imbalances and testing them on an enormous scale could give more insight on how to approach this Meditation Subject.

Another discussion point is the similarity between post-phenomenology and self-phenomenology. The theory of self-phenomenology is applicable for this specific case, but boundaries between it and post-phenomenology are translucent. Also, the theory of self-phenomenology could be compared to other methods connecting technology and the human body. The only difference here is the starting point. The theory of self-phenomenology indicates that a body is needed, while other theories concerning, for example, human enhancement try to understand how the mind reacts to it.
Furthermore, the technologies mentioned in chapter two could be investigated more. It is interesting to investigate what technological surroundings play an essential role during meditation and how they could be divided into more specific categories. This research could be turned towards the design and use of technology and innovations. 'Why are certain decisions made in the design processes, and what scripts are intended for the specific design?' are questions that could be asked.

Next, the overlapping post-phenomenological categories could be investigated. How clear are the lines here and why are they defined as such? Answering those questions could clarify the limitations of this new idea of self-phenomenology and create a clear framework on what technologies do with the user.

Furthermore, when looking at the case study of the Silence Suit, the research could be executed on a larger scale. More practitioners with different meditation-levels could give input on their experience with the suit to get a more detailed understanding of how the suit is perceived during the meditation. Besides, an unexpected outcome in the case study was a part of the ritual it takes to use the suit, namely setting a goal for the meditation by filling out the forms. Although those forms are focused on the meditation with the suit, the idea of thinking about what you want to achieve during the meditation and where your mind is at can help understand what happens within the meditation on a new level. Thus, this is another factor interfering with the meditation. Besides, reflecting on meditation and being able to compare the outcome with other meditations allows for learning from experience and growing faster.

This is not so much the technology creating a new connection to the self, but the reminder of the awareness that does too. This means that, again, we have to take a closer look at how the technologies behave during the meditation and what the practitioner’s experience is. For practice makes perfect, meditation and mindfulness is a journey on which several stages apply. So, part of the technological relation implies that we need to take into account how well acquainted one is with mindfulness or meditation practices. This means that one cannot build the self in one session, and there must always be an awareness of the intentions of those practices. It could be said that advanced practitioners may already have another perception of the self or are more comfortable with the presence of their (technological) surroundings, but that does not mean they are less affected by the technology.
Bibliography


Descartes, R. (1644). *Principia Philosophiae*. 


Talks at Google; Thompson, E. (2016, June). Dr Evan Thompson: "Waking, Dreaming, Being". Retrieved April 15, 2019, from https://www.youtube.com/watch?v=StG-dmBWu7k


Appendices

Appendix A – Measurements Danielle Roberts

Meditation Session 1 - Time: 10 minutes – 11/06/2019 – 17.30
Meditation Session 2 - Time: 10 minutes - 11/06/2019 – 17.53
Appendix B – Measurement Merel Bakker

Meditation Session 1 - Time: 10 minutes - 11/06/2019 – 17.30
Meditation Session 2 - Time: 10 minutes - 11/06/2019 – 17.53
Appendix C – Questionnaire before meditation

Meditation measurement before meditation

complete this form before you meditate
* required
In preparation for the meditation I have ... *
  • relaxed my body (e.g. exercises or a walk)
  • quieted my mind (read, looked out of the window)
  • nothing special, I have not prepared

Intention

the following questions relate to your intention for this meditation session

at this time to what extent do you feel attentive and present? *
not at all very much

to what extent do you feel commitment and energy to meditate? *
none at all very much

to what extent do you have an open and inquiring mind? *
not at all very much

to what extent do you have a relaxed attitude to what will occur during the meditation session? *
not at all very much

Colour of the mind

The following questions relate to the state of your mind. We use the weather as a metaphor. Indicate as well as possible your state of mind at this moment.

if you look at your mind, how clear is it? *
perfectly clear dense fog

if you look at your mind, how much precipitation is there? *
dry and sunny pouring rain

if you look at your mind, how calm is it? *
calm a hurricane
Meditation method

The questions below relate to what you plan to do during this meditation session, in which way will you practice most of your session?

Do you meditate with your eyes open or closed? *

- closed during the entire session
- open / cast down during the entire session
- Open 50% of the time, 50% closed

in which body posture do you meditate? *

- I sit
- I lie
- Other ...

do you meditate with a meditation object? *

- no (I am alone, open awareness) > You’re done now
- yes (e.g. the following breathing, naming thoughts) > Please continue to Attention

Attention

Describe as accurately as possible how you will focus your attention during this meditation session.

how big is your focus area, your focus? *
This question relates to the level of detail and focus of your meditation object. Small focus is, for example: watching the air as it enters your nose or naming your thoughts. A big focus is then to follow your breath in general or the awareness of thoughts as they come and go.

- small
- big

which sense do you use as a meditation object? *

- feeling (e.g., follow the breath, focus on a body part or pain point)
- hearing (listening to ambient sounds)
- the mind (e.g. naming thoughts or Metta meditation/mantra)
- seeing (e.g. internal visualisation or object outside yourself)
- smelling
- other
Meditation measurement afterwards

Complete this questionnaire after you have meditated. Your answers relate to the just-completed meditation session.

* required

Colour of the mind

The following questions relate to the state of your mind. We use the weather as a metaphor. Indicate as well as possible your state of mind at this moment.

if you look at your mind, how clear is it? *
perfectly clear  dense fog

if you look at your mind, how much precipitation is there? *
dry and sunny  pouring rain

if you look at your mind, how calm is it? *
calm  a hurricane

Has your object of attention changed compared to what you intended? *
- No > continue to: Quality of attention
- Yes > please fill in the next question

Contrary to what I intended, I meditated
Without meditation object (open awareness) > continue to: Quality of attention
With a meditation object > please fill in the next questions

how big is your focus area, your focus? *
This question relates to the level of detail and focus of your meditation object. Small focus is, for example: watching the air as it enters your nose or naming your thoughts.
A big focus is then to follow your breath in general or the awareness of thoughts as they come and go.
small  big

which sense do you use as a meditation object? *
- feeling (e.g., follow the breath, focus on a body part or pain point)
- hearing (listening to ambient sounds)
- the mind (e.g. naming thoughts or Metta meditation/mantra)
- seeing (e.g. internal visualisation or object outside yourself)
- smelling
- other
Quality of attention

How clear was the object of attention? *
very clear / very unclear / vague

How stable was your attention to the object? *
very stable, I was not distracted / very unstable, I was constantly distracted

How clear was it what you drew attention away from the object? *
Very clearly, I can say exactly where my attention went / Very unclear; I have no idea what occupied me

How quickly did you notice the distraction? *
Instantly / Never, I was absent the whole session

How much effort did it take to stay attentive? *
No trouble at all / A lot of effort

Hindrances

The following questions relate to the obstacles that you experienced during this meditation session.

How much desire did you feel during the meditation session? *
None at all / A lot

How much aversion or disgust did you feel during the meditation session? *
None at all / A lot

How much anger did you feel during the meditation session? *
None at all / A lot

How much sloth and torpor did you feel during the meditation session? *
None at all / A lot

How much restlessness did you feel during the meditation session? *
None at all / A lot

How much doubt did you feel during the meditation session? *
None at all / constantly during the entire session

If there were thoughts and emotions, to what extent did you experience them as mental symptoms with a physical reaction? *
Every time they occur / Never when they occurred
Experience

The following questions relate to the experience of your meditation session

To what extent have you done your best to achieve something during this meditation session? *
Not at all                 Very much

How satisfied are you with this meditation session? *
Extremely satisfied       Very dissatisfied

How much has this session contributed to your well-being? *
Very much                 Not at all

How much relaxation did you feel during this meditation session? *
A lot of relaxation       No relaxation at all

Are there any other things you want to say about this meditation session?
Appendix E – Minutes of Interview Danielle Roberts (Dutch)

The minutes of the Interview/conversation with Danielle Roberts on Tuesday the 11th of June, 2019. Questions by Merel Bakker

Hoe kwam je op het idee om het pak te creëren?
Het was het samenkomen van verschillende dingen. Ik deed al aan meditatie. Heel veel mensen beginnen het voor de rust en ontspanning. Ik had al een doel namelijk het ultiem inzicht vinden. Omdat ik verlicht wil worden en mezelf wil vinden. (what is the self?) Omdat ik denk dat er aan het einde van het ‘leiden’ meer kan zijn. Ik deed al 20 jaar zonder nieuwe technologie bij mijn meditatie. Ik deed zang meditaties, loop meditaties, mantra’s. Ik had gesprekken met leraren en gebruikte bandjes om mijn meditatie af te luisteren.
Daarnaast raakte ik heel erg geïnteresseerd in dingen over mezelf verzamelen. In 2005 kwam er een term naar boven drijven die mij altijd heel erg heeft geboeid: “the quantified self.” Hierbij werden zelf tool gemaakt, en aangezien ik al een kunstenaar was kwamen dingen als geluid, beeld en animatie me bekend voor. En dit idee van jezelf verbeteren of optimaliseren sloeg me wel aan. Plus dat het me interessant leek om dingen uit andere domeinen toe te passen binnen meditatie. Dus het leek me mooi om een dataset te creëren voor meditatie die me optimaliseert of op tijdens de meditatie beter doet voelen.

Hoe begon je met het ontwikkelen van het pak? Waar hield je rekening mee?
Het eerste waar ik mee begon was het bekijken van welke omgevingsfactoren ik nodig had. Zo kwamen al snel ‘tijd van de dag’, ‘warmte/kou’ en ‘hoe begin je de meditatie?’ naar voren. Allemaal met de vraag: Wat als je jezelf kunt optimaliseren dat je makkelijker in de motivatie komt? Ik kwam eraan dat over omgevingslicht heel veel te vinden was, dus besloot al snel dat dat een goed beginpunt zou zijn. Ook wist ik dat ik Artificial Intelligence wilde gaan gebruiken om te voorspellen wat er aan de omgeving veranderd moest worden om de meditatie te optimaliseren. Alleen daarvoor heb je eerst datasets nodig. Ik begon uiteindelijk met 4 sensoren, die daarna meer werden.

Het artificiële gedeelte heb ik door externe hulp laten doen. Hij heeft voor mij een systeem gebouwd die mijn data zou kunnen meten. Hiervoor had ik alleen wel data nodig. Zodoende heb ik een test opgezet met 200 sessies van 20 minuten, man/vrouw en leeftijd wisselend. De focus van deze sessies kon liggen bij 3 verschillende ‘lichtsterktes” door de Philips Heu lamp. Alertheid, Ontspanning en
Concentratie/Focus. Het pak zou dan data geven en een logaritme van de dataset zou moeten aangeven welke kleuren welke invloed heeft op de meditatie.

Welke uitkomsten waren er? Wat gaf het pak aan?
Er gebeurde heel veel dingen in de data, maar deze kwamen niet rechtstreeks van het licht. Wel was er nu een specifieke inzicht in de meditatie en de ervaring ervan. Wel kwamen we erachter dat het beantwoorden van de 2 vragenlijsten vóór en na meditatie invloed hadden op hoe de meditatie werd waargenomen. Zo hadden gebruikers een specifiek doel voor ogen en hielpen ze zichzelf herinneren waarom te mediteren. Ook dingen als houding en ademhaling werd beïnvloed door de aanwezigheid van het pak en zodoende ook de specifieke inzet van de gebruiker.
Na de meditatie werd de gebruiker nogmaals gevraagd naar de kwaliteit, e welbevindingen en de hindernissen van de meditatie. Wel in het achterhoofd dat het een vrij subjectieve ervaring is.

Hoe heeft u het pak ervaren?
Het pak helpt je om je bewust te zijn van je lichaam. Ik voelde een zekere connectie met mijn lichaam die afkomstig was van het bewustzijn en besef van het pak. Het pal maakt je op zeker hoogte bewust van de meditatie. Alsof je bezig bent met een bijzonder ritueel.
Waar ik zelf heel veel aan heb gehad is het reflecteren van de meditatie. En het ritueel met het pak zorgde daarvoor. Ik wilde het systeem trainen.

Bent u tijdens de meditatie bewust van het pak?
Nee, niet specifiek. Maar dat komt omdat ik al in een diepere laag van de meditatie zit. Ik denk dat het voor jou heel anders zou zijn, aangezien je het pak voor de eerste keer gebruikt. Voor mij is het echt een hulpmiddel die mij laat zien wat ik heb gedaan. Natuurlijk, is er soms wel het gevoel van ‘de score’ verbeteren, maar ik ben me meer bewust van de meditatie en de toezegging op de meditatie dan van het pak zelf.

Gebruik je het pak elke dag?
Nee, ik ben onderhand bezig om mijn meditatie te verlengen en dat lukt niet met het pak. Door de sensoren kan het pak tot ongeveer 30 minuten werken. Dus de meditaties die langer duren dan 30 minuten worden al lastig. Daarnaast is het aandoen en aansluiten van het pak lastig en tijdrovend. Je moet zeker 15 tot 20 minuten bij een meditatie optellen als je het pak gebruikt, en daar heb ik niet altijd tijd voor. Ook het invullen van de formulieren online is tijdrovend. Alhoewel dat je ook wel weer in een bepaalde mindset zet voor de meditatie.