

Is the Metaverse a new world?

Interpreting the Metaverse from the perspective of Heidegger's philosophy

By

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**Abstract:**

This thesis examines the phenomenon of the Metaverse from Martin Heidegger's perspective, focusing on the concepts of Dasein, reality, truth, and the world. The main focus of the thesis is the reality and the worldhood in the Metaverse.

The first two chapters will explain the main relevant concepts in Heidegger's philosophy for this topic. This starts with Dasein, which refers to the human existence, and world, which involves the overall network of the significance of meaningful relationships and context. The understanding of truth and reality is also highlighted and emphasized to clarify the existential nature of the network that all these concepts form.

In Chapter 3, based on Heidegger's theories, the relationship between technology and the world is inquired. Heidegger argues that technology is not only a tool, rather, it has the capacity to reveal the world as a standing-reserve, reducing the entities to mere means for certain aims, by way of instrumentalization of the resources that are supposed to be ready for human beings when they need them.

Through this preparation, the thesis provides a foundation to explore the ontological concept of the Metaverse. Based on Heidegger's philosophical framework, chapter 3 of the thesis then concludes that the Metaverse is indeed a new world. The Metaverse, by providing an immersive experience and a variety of new experiential and interactive possibilities provides environments in which people can interact and get involved with visual and digital entities. Dasein through this involvement allows the entities to refer, and in Heidegger, this means for them to be real. The entities in the Metaverse are real, although not in the same way as the entities in the physical world are.

The thesis then suggests that the difference between the reality of entities in the Metaverse and the ones in the physical world can be explained by the fact that the kind of references they make in the Metaverse are different from those of the physical world. This means that the virtual representations and experiences within the Metaverse lack some ontological aspects of the physical realm.

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In loving memory of my beloved father.

Dr. Teymoor Moradi (01/10/1964 - 05/08/2020)

Though you are no longer physically present by my side, your unwavering love, guidance, and inspiration continue to shape every step of my journey. This Master's thesis is dedicated to you, my dear father, whose spirit and influence remain eternally alive within me.

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# Chapter 1:

## Introduction

### 1.1. Why Heidegger?

One important question considering the title of this thesis is about the reason for having chosen Heidegger to talk about a phenomenon that doesn't belong to his time. The Metaverse is a constantly updated technology, continually expanding and refining itself. It belongs to the 21<sup>st</sup> century, in which technology and science are changing very fast. The difference in the achievements of technology and science in the 20<sup>th</sup> and 21<sup>st</sup> centuries is so meaningful that a philosopher from the previous century seems not to have anything to offer for understanding such a phenomenon in the present time.

Heidegger on the other hand, belongs to the previous century and didn't have the chance to confront the Metaverse. Even the internet emerged only in the last years of his life, and he had no image of today's computers. Consequently, I will defend why I chose Heidegger to examine such a recent phenomenon.

However, before that, for one who chooses to talk about a phenomenon from a philosopher's perspective, there seems to be a more fundamental question to answer. Why choose any philosopher in the first place? Does one need to choose a philosopher at all when he wants to philosophically talk about a subject?

### 1.2. Why any philosopher?

When writing about a subject, especially within philosophy, numerous concepts come into play. For example, if someone is interested in exploring whether the Metaverse is a new world or merely a tool, in the first step, three key concepts arise: "Metaverse," "world," and

"tool". To truly grasp the meaning of these concepts, we need the guidance of philosophers. One crucial role of philosophers in society is to establish a framework of concepts, enabling us to understand the meaning of arguments. Thus, to determine whether the Metaverse is or is not a new world, it is necessary to provide clear definitions of what I mean by the concepts I have to use. A philosophical analysis is possible only within a clear conceptual context.

### 1.3. Heidegger

Heidegger is one of the most influential modern philosophers. His aim was to revive what he saw as the most fundamental philosophical question again. This main question was about the meaning of Being: a question he considered forgotten in the history of philosophy for a long time. "The very fact that we already live in an understanding of Being and that the meaning of Being is still veiled in darkness proves that it is necessary in principle to raise this question again" (Heidegger, 1962, p.23).

He also has a clear perspective on what it means to be human and on the meaning of "world" and its relationship to human existence. One other thing that makes Heidegger outstanding among recent philosophers is that he considers the complexities of the relationship between human beings and the world. He reflects on the fact that he is a human being that is philosophizing. He considers human's special parameters like the fact that a human is a historical entity and that everything in the world is constantly changing, including the human itself. His philosophy is designed to overcome the subject-object dichotomy as well as the subject-world dichotomy by emphasizing that the subject (Dasein) is always already in the world, which means he doesn't hold a raw realistic perspective in which a subject is confronting other objects like a passive camera, and according to which the truth means accommodation of propositions and the facts out there. The idea is that a human is not a mere camera that is recording what it perceives with its senses. Heidegger emphasizes that

the human being (Dasein) is not simply an entity among other entities and points out in what sense Dasein's presence in an environment is what makes it an environment. He characterizes this complicated relationship between Dasein and its world. Heidegger's philosophical inquiry in *Being and Time* thus acquires all of the key concepts and perspectives, that I need in my thesis to analyze the meaning of "world" for my larger project.

In a radical methodological move, Heidegger starts his philosophical inquiry with one being that exists and cares about the meaning of this existence. This special entity is the human being which he calls Dasein. "To work out the question of Being adequate, we must make an entity -the inquirer- transparent in his own Being." (Heidegger, 1962, p.27).

He starts with what Dasein knows about Being. We understand Being because we ourselves exist and we describe other things as things that are. "Dasein is ontically distinctive in that it is ontological<sup>1</sup>" (Heidegger, 1962, p.32). Of course, this knowledge is not theoretical. It is what he describes as pre-ontological. It means that we can't explain it, but we are living with it. Being and other related verbs are among the most frequent verbs in our daily sentences, plus we talk about the absence of things and about nothingness. "Dasein is ontically 'closest' to itself and ontologically farthest; but pre-ontologically it is surely not a stranger" (Heidegger, 1962, p.37). This means that we experience ourselves intimately and directly. We are ourselves and so we are the closest to ourselves. However, the moment we think about our own existence we realize that this is not something that we can explain. There are lots of unknown aspects in our existence. But finally, this existence is not something totally strange for us. We take it to be granted and we live with it. We know that there sure is a way to it. This pre-ontological (not theoretical but experiential) knowledge is a good clue that helps Heidegger on his way to an ontological understanding of the meaning of Being.

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<sup>1</sup> in Heidegger's philosophy, ontology concerns the existence of beings, while ontical refers to things regarding the fact that they are a thing. Also, see section 2.4. for more details.



Further in his inquiry, the already mentioned relationship between Dasein and the world stands out, and the meaning of the “world” and the way Dasein exists shows itself as so intimately connected that it allows Heidegger to redefine Dasein as “being-in-the-world”. Heidegger’s inquiries about the meaning of the “world” consider different possible meanings of the concept and the existential relationship between it and Dasein as the only entity that has a world.

Considering the Metaverse, when people ask if the Metaverse is going to make a new world, by “world”, they don’t mean a bigger thing including lesser things. They are not talking about a new physical world, but they are talking about somewhere that will host the presence of our minds, somewhere in which we will spend our time and engage with things. Heidegger’s theories about the world and its relationship with Dasein are very helpful for a deeper understanding of the meaning of this particular concept of “world”.

One other stimulus to choosing Heidegger is that, in his inquiries, he has also a very critical view of other philosophical traditions, and especially he critiques modern philosophy since Descartes. All these critiques make his theories clearer and make it easier for others to find his position in modern philosophy.

On the other hand, we should not forget that Heidegger belongs to the 20<sup>th</sup> century and has some important theories about the meaning of technology<sup>2</sup>. He lived in the 20<sup>th</sup> century when technology was spreading its domination on the world, and as a matter of fact, a perceptive thinker like Heidegger in the middle of such critical changes could better see the essence of this new direction of the world comparatively clearly. Thus, in this work, we will analyze what “world” means in Heidegger, then consider the basic factors of the Metaverse, and finally conclude whether the Metaverse is a new world or not.

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<sup>2</sup> For Heidegger’s views about technology see below section 3.3.

#### 1.4. Why is this research important?

The Metaverse is one of those ambitiously huge projects in the digital world that is most likely going to be widely dominant in our future lives. The accessories related to entering this so-called reality would be as widespread as smartphones. This is not far from mind. Just imagine exhibitions, events, or movies within the Metaverse that need special AR glasses to be seen. Especially when these events tie up with people's more important events such as economic or cultural issues, more and more people would purchase and use those accessories. And of course, the investments in producing cheaper and more affordable equipment would be a catalyst for an easier spread of the Metaverse.

Furthermore, it will bring some effective facilities. Users can freely choose their avatars, and thus appear as they always wished to. People with disabilities would act with more freedom in the new environment and they can feel like other neurotypical people.

Other important factors may help this project to spread soon in the future.

- People can see others, like their family members, in a more realistic space. This will cause older people to become inclined to use this technology, so they can see their loved ones more regularly.
- People can work from home in a more interactive environment. It can cause businesses to desire to invest in this equipment to reduce the cost of their business in the long term.
- Electronic currencies enable people to buy, sell and trade. This helps the Metaverse to become more interesting.
- Better graphic experiences for gamers make it popular among the younger generations.

Thus, the future dominance of the Metaverse is very likely around the corner, and it will strongly and widely affect our lives. Based on this, philosophical inquiry about it is very important and urgent. We should clarify the concepts related to this phenomenon and make new ones if necessary. The more conceptualized it gets the clearer and more reachable it would be. Plus, talking about morality in the Metaverse would be more realistic and effective, based on all this conceptual work.

### 1.5. The question

The main question of this thesis is to understand the way the Metaverse reveals crucial features of the world to us, in particular the relationship between the Metaverse and technology, and how this relationship affects the way the Metaverse is. I want to inquire into whether the Metaverse is going to constitute a new world for us and if yes, how this new world would be different ontologically.

### 1.6. Heidegger's philosophical method

Phenomenology for Heidegger means, in one sentence, to go "to the things themselves" (Heidegger, 1962, p.58). Phenomenology for Heidegger is the only way that makes ontology possible.

What Heidegger calls phenomenon is the most fundamental aspect of an entity. It is the Being of the entity and behind this Being, there stands nothing else that could possibly be hidden.

"In the phenomenological conception of "phenomenon" what one has in mind as that which shows itself is the Being of entities, its meaning, its modifications, and derivatives. And this showing-itself is not just any showing-itself, nor is it some such thing as appearing. Least of all can the Being of entities ever be anything such that

'behind it' stands something else 'which does not appear'. Behind the phenomena of phenomenology there is essentially nothing else;" (Heidegger, 1962, p.60).

The phenomenon is different from appearance. What appears shows itself, but the phenomenon announces itself through the appearance of what shows itself. The phenomenon doesn't appear. It announces itself by what shows itself and stays behind it. It is simultaneously hiding and announcing itself. Appearance is possible because of the phenomenon. It means that as long as things are phenomena, and they want to show themselves in themselves, appearance is possible. In answering the question of the nature of the phenomenon, Heidegger says:

"It is something that proximally and for the most part does not show itself at all: it is something that lies hidden, in contrast to that which proximally and for the most part does show itself, but at the same time it is something that belongs to what that shows itself, and it belongs to it so essentially as to constitute its meaning and its ground" (Heidegger, 1962, p.59).

Dreyfus, by comparing the meaning of phenomenology in Husserl and Heidegger, emphasizes "interpretation" as one of the most important concepts in Heidegger and believes that to understand the meaning of phenomenology in Heidegger, we should first understand the meaning of hermeneutics. "Phenomenology, when correctly understood, turns out to be hermeneutic, that is, interpretative. Our investigation itself will show that the meaning of phenomenological description as a method lies in interpretation" (Dreyfus, 1995, p.32).

The concept of "interpretation" in *Being and Time* is explained in Chapter 5, section 32. There are many different concepts necessary to be explained before we understand it completely, however, Dreyfus briefly suggests:

“In general, the so-called hermeneutic circle refers to the fact that in interpreting a text one must move back and forth between an overall interpretation and the details that a given reading lets stand out as significant. Since the new details can modify the overall interpretation, which can in turn reveal new details as significant, the circle is supposed to lead to a richer and richer understanding of the text. (Dreyfus, 1995, p.36)

Heidegger’s methodological hermeneutics is a spiral way to “the thing itself”. Heidegger always starts from our knowledge in our ordinary lives and then tries to make the terms and concepts clearer, and in returning to the thing, again and again, we find him in a more exact and more secure perspective. Asking questions about different aspects of the primary ordinary knowledge, trying to get help from the genealogy of the terms and concepts, and regularly returning to the first interpretation give a clearer perspective on the thing we were studying.

With these preliminary clarifications, we can move the thesis to the next chapter where Heidegger’s terminology gets more clear.

## Chapter 2:

### Heidegger's philosophy

“World” in Heidegger’s philosophy is a complicated concept. In this chapter, I will introduce and explain the key concepts and ideas of Heidegger’s theory, which are needed to understand his concept of the “world”. Additionally, I will examine concepts such as “reality” and “truth” in Heidegger, as they will be central to the idea of the Metaverse, as explored in the following chapter.

#### 2.1. Against the subject-object dichotomy

The picture of humans as knowing subjects confronting a world of objects is a famous and routine model among modern philosophers. Philosophers emphasize different aspects in trying to characterize the relationship between these two spheres. Other important concepts like reality, truth, objective validity, world, knowledge, etc., are all defined based on how this relationship is originally characterized. Being an idealist or a realist is also based on different ways of how one justifies this relationship. Kant tried to escape this dualism with his transcendental idealism, but this happened at the cost of deepening the subject-object dichotomy even more. In Kant, the noumenal side remained wholly unknown and in itself.

Descartes, before him, divided existence into two different substances: thinking minds and extended matter, *res cogitans* and *res extensa*.

“I think that a stone is a substance, or at least a thing capable of existing of itself, and that I am a substance also, although I conceive that I am a thing that thinks and not one that is extended, and that the stone, on the other hand, is an extended thing which does

not think, and that thus there is a notable difference between the two conceptions.”  
(Descartes, 1996, p.16).

Charles Guignon, one of the commentators of Heidegger, asserts that: "the Cartesian legacy includes a conception of the world as consisting of minds and matter, a picture of truth as correct representation, and a belief that intelligibility is to be rooted in rationality" (Guignon, 1994, p.14). Descartes was important in particular because of the ways a list of philosophers after him tried to solve the problems arising from his dualism.

We also find this mind-matter dualism in other significant figures of the seventeenth century. John Locke, in his famous *Essay Concerning Human Understanding*, declares that: "our observation employed either, about external sensible objects, or about the internal operations of our minds perceived and reflected on by ourselves, is that which supplies our understanding with all the materials of thinking" (Locke, 1912, p.25). Besides, when Leibniz answers Locke's claims in his essay, *New Essay on Human Understanding*, he does not challenge the dichotomy. Instead, he rejects the theory of *tabula rasa* or, as he asserts, blank souls, which is Locke's theory about the human mind. In addition, Hume, one of the most radical skeptics, mentions: "All belief of matter of fact or real existence is derived merely from some objects, present to the memory or senses, and a customary conjunction between that and some other object" (Hume, 2007, p34). Kant believes that the unsolvable problems regarding the relationship between mind and matter are a scandal.

“It always remains a scandal of philosophy and universal human reason that the existence of things outside us [...] should have to be assumed merely on faith and that if it occurs to anyone to doubt it, we should be unable to answer him with a satisfactory proof” (Kant, 1998, p.121).

Heidegger, on the other hand, has a different perspective: “The scandal of philosophy does not consist in the fact that this proof is still lacking up to now, but in the fact that such proofs are expected and attempted again and again” (Heidegger, 1996, p.190). Here, he is referencing one of his philosophical aims: the overcoming of the subject-object dichotomy. Of course, this dichotomy is not something that anyone can simply neglect or reject. We indeed find ourselves confronting other things: The things that are not us. We also know that there are things that are unknown and yet waiting to be known. This way of encountering the world is intuitively clear, and Heidegger does not want to fight with clear intuition. On the contrary, he wants to bring up a more profound sense of our intuition of what’s going on between humans and their world. His philosophical inquiries are phenomenological.

## 2.2. Heidegger’s critique of Descartes

Before I explain Heidegger’s philosophical method and some of his key concepts in more detail, a brief further characterization of his critique of modern philosophy, as represented by Descartes, helps to understand his unique position among philosophers.

As already mentioned, Heidegger’s main philosophical problem was “the meaning of Being”. It affects the way he inquires about different subjects. He usually starts from what we know in our ordinary lives about the issue and then continues to reach a better image of how it exists. The way things exist is the departure point of his understanding of the phenomena.

The epistemological order of what we know about things differs from the way they exist. To understand this point better, I want to refer to some of Heidegger’s comments on Descartes’ way of philosophizing. His main critique is that Descartes leaves the meaning of Being unthought.



Heidegger, in *The History of the Concept of Time*, after a long struggle with Descartes's perspective, quotes Descartes:

"I openly admit that I acknowledge no objectivity of corporeal things other than that which is in all ways divisible, shapeable, and mobile with respect to place. I mean that determination which the geometers and mathematicians call quantity and which the mathematicians take as the sole object" (Heidegger, 1985, p.181).

This is what Heidegger calls a mathematical picture of the world. Descartes depicts substance and objectivity as something possessing quantity and divisibility regarding space. Something that mathematicians can calculate its quantity. This comes from Descartes conceiving substance as three-dimensionally extended, and Dreyfus called this the insufficiency of the doctrine of substance in claiming that "the omission of the meaning of being, in general, is indicated in the Cartesian texts by the insufficiency of the doctrine of substance" (Dreyfus, 2002, p.91). Heidegger even explains this mathematical picture more clearly in *Being and Time*. He describes the sense of matter in Descartes's philosophy:

"The only genuine access to them [substances] lies in knowing, *intellectio*, in the sense of the kind of knowledge we get in mathematics and physics. Mathematical knowledge is regarded by Descartes as the one manner of apprehending entities which can always give assurance that their being has been securely grasped. If anything measures up in its own kind of being to the being that is accessible in mathematical knowledge, then it is in the authentic sense" (Heidegger, 1962, p.128).

Heidegger claims that in Descartes, substantiality as an idea of being and mathematical knowledge as an idea of knowledge is being imposed on the world. Descartes determines that the mere feature of objective substance that never disappears is "magnitude or extension in length, breadth or depth" (Descartes, 1911, p.16). Heidegger challenges this and says: "In

what way is the being of the world defined here? From a very precise kind of knowledge of objects, the mathematical. The being of the world is nothing other than the objectivity of the apprehension of the nature through calculative measurement" (Heidegger, 1985, p.181). And about the meaning of the Latin word "sum," which means to exist, Heidegger thinks that Descartes has not explained that meaning at all.

"Descartes, to whom one attributes the discovery of the *cogito sum* as the point of departure for all modern philosophical questioning, he investigates the *cogitare* of the ego within certain limits. But the *sum* he leaves completely undiscussed, even though it is just as primordial as the cogito" (Heidegger, 1996, p.43).

The way Descartes philosophizes is to doubt everything to reach a point so distinct and clear that refusing it concludes in a contradiction. Heidegger believes that the most important thing to know about anything is the way it exists. Things want to present their Being. The cardinal thing that we should do is to let them do so.

"The kind of being which belongs to entities within-the-world is something which they themselves might have been permitted to present, but Descartes does not let them do so. Instead, he prescribes for the world its 'real' being, as it were, on the basis of an idea of being whose source has not been unveiled and which has not been demonstrated in its own right- an idea in which being is equated with constant presence-at-hand " (Heidegger, 1962, p.129).

These are some of Heidegger's main objections against Descartes. First, not thinking about the meaning of Being, and second, not allowing things to present their own kind of Being. The former shows itself in leaving the meaning of the term "sum" in his famous quotation *cogito ergo sum* unthought, and the latter in oversimplifying the criteria of existence for the things that are extended and the things that think. Heidegger, as mentioned above, believes

that this kind of confronting the world comes from dealing with things as being “present-at-hand”. While this will be explained in more detail below (see section 2.11.), but here a brief outlook. Simply speaking, Heidegger distinguishes things that are “present-at-hand” (vorhanden) from things that are “ready-to-hand” (zuhanden). The latter are things in their function as tools, which are “to hand”. The former are things that merely *are* (“vorhanden” means existing in the sense of being simply around), and are potentially subject to ‘objective’ examination. Things, when present-at-hand, are standing in front of us. We ask about them, measure them, and deal with them in all different possible scientific ways. This acquires what we call theoretical knowledge of things. Heidegger believes this is not the most authentic knowledge about things as it doesn’t come from the most authentic way of Being. I will explain more about this term further in this chapter, but the point here is that Heidegger believes we should let things show themselves as they are in themselves, and this doesn’t happen when we deal with them theoretically or scientifically. Rather, we should consider things as they are most of the time, and in that case, we will see that everything can have a different meaning from when we are dealing with things as our theoretical investigations.

### 2.3. Being, in Heidegger’s view

In *The Basic Problems of Phenomenology*, Heidegger, after a long discussion of the meaning of existence in Kant, finally says:

“Thus, the provisional analysis of the Kantian interpretation of existence yields a double result. First, not only is this interpretation unclear and thus in need of greater clarity, but, secondly, it is questionable even when given the most favorable reading, being equals perceivedness” (Heidegger, 1982, p.49).

Heidegger sees Being as the most fundamental philosophical base and believes that considering Being as perceivability comes from wrong priorities. “Perceivability on its part

already requires the existence of the perceivable or the perceived being” (Heidegger, 1982, p.49).

Asking about Being is not easy. In the introduction of *Being and Time*, Heidegger accepts that Being is the most universal concept, is indefinable and is self-evident. However, none of these features persuades him to put the question of Being away. On the contrary, he asserts that it is the most profound question of philosophy. He believes the question should be formulated correctly first, so it opens a way toward the answer.

First, he mentions that we can’t ask about something that we have absolutely no clue about. The fact that we ask about the meaning of Being shows that we know something about it. “Inquiry, as a kind of seeking, must be guided beforehand by what is sought. So, the meaning of Being must already be available to us in some way” (Heidegger, 1962, p.25). Then he emphasizes that the question about Being differs from the question about other entities. It is important to know that in Heidegger, “The Being of entities 'is' not itself an entity” (Heidegger, 1962, p.26). And by “entity,” he means empirical things: “Everything we talk about, everything we have in view, everything towards which we comport ourselves in any way, is being<sup>3</sup>; what we are is being, and so is how we are” (Heidegger, 1962, p.26). In contrast, the Being of entities is not another entity.

As we learned, Heidegger is after the “meaning of Being”. Another way to phrase this is the “Being of beings” (das Sein des Seienden). That what all entities share – Being, Sein – is not itself an entity. This difference between beings (entities) and their (shared) Being is what Heidegger calls the *ontological difference*, and he accused all philosophers before him of overlooking this “Sein”, thus, of “Seinsvergessenheit”. As we pointed out in the next section,

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<sup>3</sup> In *Being and Time*, being (with small b) means an entity, and Being (with capital b) means the level or form of their shared existence.

he consequently had to differentiate the traditional concept of ontology to accommodate for these two totally different levels of what “is”. He called the examination of the *Being* of beings the “ontological” examination, complementarily, the examination of beings as empirical entities is the “ontical” one<sup>4</sup>.

Heidegger then determines that for the question of the meaning of Being one particular entity should be interrogated. This entity, as Heidegger declares, is Dasein. Dasein is Heidegger's term for human beings, it means the entity that asks the philosophical questions “To work out the question of Being adequately, we must make an entity, the inquirer, transparent in his own Being” (Heidegger, 1962, p.26).

#### 2.4. Ontical versus ontological

As mentioned, Heidegger's philosophical investigation usually discuss things on at least two different levels: Ontical and ontological.

“He distinguishes between (a) the ontic level of the factual that is open to observation, the level of field studies for the phenomenologist, and (b) the ontological level, phenomenological description of the deep structures that underlie and explain the ontic” (Frede, 2007, p.55).

When he ontically talks about something, he considers it as an empirical entity with particular properties. In its ontic sense, the world is full of different things. The human being is an entity with some unique, and some common properties with other entities. Scientists deal with the world in its ontical sense, and although different sciences deal with different entities, they all deal with them ontically. It is important to know that this

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<sup>4</sup> Analogously, he distinguishes between “existential” and “existentiell” inquiries, as well as between “phenomenological” and “phenomenal” levels of examination, the latter level always dealing with concrete factual things or events.

theoretical/scientific confrontation with things is one of Dasein's behaviors. However: Scientific research is not the only manner of Being which this entity can have, nor is it the one which lies closest" (Heidegger, 1962, p.32).

In contrast, the ontological level refers to the way an entity exists. Here, we are eager to know about more fundamental components. The aim is to understand why a particular entity has this or that peculiar property, or in what structural relation it stands to other entities or features. For example, why does Dasein ask about Being, yet, we don't see evidence of the same inquiries by other entities? Why and in what way is Dasein's presence in a place different from the presence of a table there? Here we want to know how the ways of being of different kinds of things differ from each other and how these differences make them different kinds.

During the discussion in the previous section, we discovered with Heidegger that the question of the meaning of Being has an entity that should be interrogated. To answer the question of the meaning of Being, Dasein ontically has priority because of its particular kind of Being and ontologically because of its relationship with its special kind of Being. This will be explained in the next sub-section.

## 2.5. Dasein

"Dasein is an entity which does not just occur among other entities; rather, it is ontically distinguished by the fact that, in its very Being, that Being is an issue for it ... Dasein is ontically distinctive in that it is ontological" (Heidegger, 1962, p32). This is how Heidegger distinguishes Dasein from other entities. It is unique because it *cares* about its existence. It has a relationship with its Being. "This is a constitutive state of Dasein's Being, and this implies that Dasein, in its Being, has a relationship towards that Being" (Heidegger, 1962,

p32). This relationship and understanding of its Being is why examining Dasein is the best approach to finding out about the meaning of Being.

“Existence” is an expression for Dasein's special kind of Being, "that kind of Being towards which Dasein can comport itself in one way or another and always does comport itself somehow, we call existence" (Heidegger, 1962, p32). We comport ourselves to the world and understand it. We understand ourselves and the world because we have existence. We don't have a firm essence that can be addressed by a “what” like a table has. “The essence of Dasein lies in its existence” (Heidegger, 1962, p.67). We always have possibilities in front of us, and by comporting ourselves on them we can make them ours. About the meaning of Dasein's existence the Stanford Encyclopedia says:

“meaning of Heidegger's otherwise opaque claim that Dasein, and indeed only Dasein, *exists*, where existence is understood (via etymological considerations) as *ek- sistence*, that is, as a standing out. Dasein stands out in two senses, [...] First, Dasein can stand back or ‘out’ from its own occurrence in the world and observe itself (see e.g., Gelven 1989, 49). Second, Dasein stands out in an openness to and an opening of Being” (Wheeler, 2020).

The fact that Dasein cares about Being does not mean that Being is ontologically clear to them. It means that Dasein is familiar with Being. Heidegger calls this kind of familiarity with Being a pre-ontological understanding of Being. So, in sum, Dasein ontically cares about Being, ontologically is familiar with Being, and ontico-ontologically provides the possibility to ask about the meaning of Being, since if there were no Dasein with its specific ontico-ontological structure, who would ask the question at the first place? That's why Heidegger chooses Dasein as the starting point from which to ask the question of the meaning

of Being. He believes that by clarifying the Being of Dasein, we can get nearer to the meaning of Being.

I should mention that I need all these preliminaries because “world” in Heidegger is closely related to Dasein’s Being. Knowing how Heidegger gets to his understanding of this concept helps to better understand his talk about different possible implications of “world.”

## 2.6. Phenomena and phenomenology

Heidegger's philosophical method is certainly phenomenological. He defines it as “to allow entities to be seen as entities in their being” (Heidegger, 1985, p.137). Openness is the basic way in which entities show themselves to us. Since Dasein has existence, it opens itself to the world (ek-sistence), and because of this openness, it encounters entities. Heidegger determines that phenomenology is about disclosing “the phenomenon”. About what exhibits itself in the phenomenon he says:

"Manifestly, it is something that proximally and for the most part does not show itself at all: it is something that lies hidden, in contrast to that which proximally and for the most part does show itself; but at the same time is something that belongs to what thus show itself, and it belongs to it so essentially as to constitute its meaning and its ground" (Heidegger, 1962, p.59).

What conceals itself and shows itself as this or that entity is not itself this or that entity. It is no entity at all; it is its Being. Being conceals, but it simultaneously shows itself. To make it more touchable: It is like a sickness that shows itself in its symptoms. Symptoms are not the sickness itself but show an illness in the body and make those symptoms meaningful.

One of the most important principles of Heidegger's philosophy is that: "behind the phenomenon of phenomenology there is essentially nothing else; ... and just because the



phenomena are proximally and for the most part not given, there is need for phenomenology. Covered-up-ness is the counter-concept to the phenomenon" (Heidegger, 1962, p.60). To understand this paragraph, we should remember that in Heidegger, Being is not one of the entities. Being is showing itself in this or that entity, but it is not itself an entity. It means that Being is showing and hiding itself at the same time. It is showing itself but in a way that it is not. And because it is not an entity, we need a unique methodology for searching it. Heidegger believes that phenomenology is that specific method. The only possible way for ontology is phenomenology because phenomenology is the way of accessing what is to be the topic of ontology. Phenomenology discovers Being. "Phenomenon" as a concept is Being when it shows up, but Being is not identical with *what* is showing itself (the ontic dimension), it is rather the *how*, a usually hidden deep-structure of it (the ontological dimension)

Heidegger, in the introduction to *Being and Time*, says:

"The kind of Being which belongs to Dasein is rather such that, in understanding its own Being, it has a tendency to do so in terms of that entity towards which it comports itself proximally and in a way which is essentially constant – in terms of the 'world'" (Heidegger, 1962, p.36)

Heidegger believes that we understand ourselves in relation to what we encounter around us. We are not living in isolation, but we are thrown into an environment that already contains many facts; people, objects, traditions, values, educational system, etc. We have a world; we make it, and it makes us. We constantly understand ourselves and the world during our active, pragmatic relationship with our world. This is not an unprecedented perspective though. Hegel is the first philosopher named in *Being and Time*, and he appears right on the first page of the introduction. In the introduction of *Phenomenology of Spirit*, Hegel says: "This dialectical movement which consciousness exercises on itself and which affects both its

knowledge and its object, is precisely what is called the experience” (Hegel, p.55, 1977). Everything is constantly affecting others and is affected by others, resulting in changes on both sides. Hegel, before Heidegger, found out that both what is called the object side and the subject side are constantly modifying each other. Subject and object are mutually dependent on each other.

In Heidegger, “world” is constitutive of Dasein’s Being. If Dasein is a priority for understanding the meaning of Being, and if he needs to make Dasein clear in its Being, he needs to consider the relationship between Dasein and the world. Both these concepts show themselves along with each other. Dasein’s Being is Being-in-the-world.

## 2.7. Being in the world

In *Being and Time*, Heidegger claims that Dasein’s Being-in-the-world has three constitutive characteristics:

- Being-in. Here he discusses the inhood. Is there an ontological difference between Dasein’s being-in space and a table’s being-in space?
- That entity that has Being-in-the-world as its way of being. Here he characterizes the “who” that is “in the world”. The Dasein part of the relation is discussed here ontologically.
- In-the-world. The ontological structure of the world and the idea of worldhood are discussed here.

These three characteristics will be explained in what follows.

## 2.8. Being-in

There is a fundamental difference between Dasein’s Being-in and other entities’ spatial relatedness. By saying, for example, a glass is in the room, we mean that the room surrounds

the glass. "By this, we mean that one is spatially contained in another and refer to the relationship of being about place and space of two entities which are themselves extended to space" (Heidegger, 1985, p.157). But, when a person is in the room, ontologically, she is not just surrounded, but also familiar with the entities there, and it is not merely about a property of Dasein. "This in-being, which we now should never understand in a primarily local and spatial sense, is rather, as being-involved-with" (Heidegger, 1985, p.159).

Being-involved-with or being-alongside is one of the existential states of Dasein. This kind of being-in keeps Dasein open to the world so that Dasein can enter into a relationship with the world. Other entities do not have a world because they do not encounter other entities as entities, and that's because they can't get alongside other things. 'Getting alongside' means activities like dealing with, getting familiar with, and using things. 'Taking care' is another term that Heidegger uses for the behaviors that relate to Dasein's being-in. Behaviors such as producing, using, asking, accepting, etc. "Care" is one of the most important concepts in Heidegger's philosophy, as one of Dasein's central existential characteristics.

## 2.9. Mistaken interpretations of being-in-the-world and subject-object dichotomy:

Heidegger claims that a mistake in priorities can cause a severe misunderstanding. It is important to recognize that because as Dasein is in-the-world and being-in is a basic state of Dasein, it is able to establish relationships with other entities. It is not that being-in is *derived from* the relationship with other entities. Rather, Heidegger asserts that if we try to infer about Dasein's Being through inference from other kinds of entities, "the knowing which such a task explicitly implies takes itself as a knowing of the world as the chief exemplification of the soul's relationship to the world" (Heidegger, 1962, p.85). This is a common mistake, focusing on the ontical relation between one entity (soul) and another (world) This prevents Dasein's being-in-the-world from being uncovered in its fundamental and authentic way,

which is ontological. The result of such misunderstanding can easily be seen in Western epistemology. It is what Heidegger calls Knowing-the-world, in which there would be nothing more evident than a subject in relation to objects. This misleading image changes when moving to the ontological level of investigation. Here the meaning of his sentence becomes clearer: The epistemological order of what we know about things differs from the existential order of how they exist. We start knowing things by their most apparent properties (the ontic level), while all these properties depend on the way they exist, on their way of Being (the ontological level)

In addition, the meaning of what was quoted by Dreyfus about the Cartesian deficiency in defining the meaning of substance becomes more significant. "Descartes gives priority [to the ontic over the ontological level], concerning the distinction between finite and infinite substance only reinforces the fundamental orientation toward the solely ontic acceptance of *substantia*" (Dreyfus, 2002, p.91). Descartes remains at the ontic level. Of course, it is a fundamental philosophical perspective on the world, but what Heidegger wants is to go beyond the entities (ontic) to see the phenomena (ontological).

In fact, Heidegger's critique is that, based on the Cartesian perspective, since there is no sign of knowledge (cognition) in the outer sphere (*res extensa*), all the epistemologists have considered it in the inner sphere (*res cogitans*). However, Heidegger asserts that no matter where this knowledge is, the being of this inner sphere remains unknown. The being of both inner and outer spheres plus knowledge remains unknown, and that is because epistemology chooses the ontic level of research instead of the ontological level.

## 2.10. Heidegger's concept of knowledge

Regarding Heidegger's assertive theories of knowledge, he claims that what corresponds to knowledge is just one part of what he calls "Being-alongside". "Being alongside," is a way of

Being that belongs to Being-in-the-world. "This Being-already-alongside is not just a fixed staring at something that is purely present-at-hand. Being in the world as a concern is fascinated by the world with which it is concerned." (Heidegger, 1962, p.88). concern has two ends, and without any of these two ends there may be no concern. On one end there is Dasein and on the other end there is the world. We are concerned with the world and this concern is a kind of cognition.

Knowledge for Heidegger thus implies an attitude of taking-care or concern that Dasein adopts in its existence in the world. This taking care is also not blind. We encounter things while taking care, we manipulate them, and there is a sight in this manipulation and practical behavior. Mostly, we manipulate things without asking about them, but sometimes we stop working and begin staring at them. The former is an attitude in which we get alongside things, in which things are ready-to-hand (tools), and in the second attitude, in which we ask about things, things are suddenly only present-at-hand, they lose their involved tool-hood and become instead isolated objects of inquiry. In modern epistemology, acquiring knowledge is asking about things when they are present. However, Heidegger thinks that the practical, involved attitude of ready-to-hand toward the world is ontologically prior, i.e., more basic.

When something is present-at-hand, we speak about it or examine it. We start to define it with words and keep it in the language. However, even for this definition, we are not supposed to come out of our capsules to get along with something we were not along with before and then be worried about its agreement with our understanding of it. "The perceiving of what is known is not a process of returning with one's booty to the cabinet of consciousness after one has gone out and grasped it" (Heidegger, 1962, p.89).

We have existence, so we exist, and we care about it. As we care, we are open to other beings and encounter them. This encounter has a structure in which we get alongside things

and are involved with them, and in this getting alongside things are for us not usually in the attitude of presence-at-hand. We only sometimes stare at things and analyze them to get their definition. For the most part, however, we use them. Using and manipulating is more fundamental, than how scientists confront things. At the same time, this using things is our way of Being-in-the-world. Our being-in as Dasein is different from other entities. We do not just happen to be in a place like a chair. We are open, and we care, so we *have* a world. But what is the world? What is precisely the worldhood of the world? Here we are at the central question for our project.

### 2.11. Four meanings of 'world' in Heidegger

In *Being and Time*, Heidegger suggests four possible meanings of the term world: (Heidegger, 1962, p.93)

The first one is the world as an *ontic* concept that signifies the totality of entities which can be present-at-hand within the world. This is modern philosophy's most popular sense of the meaning of the world. In his works, Heidegger refers to it by terms like 'nature' and 'the real.' He calls it ontic because it concerns the entities or the totality of the entities, and not their Being.

The second is the world as an *ontological* term that signifies the Being of those entities we just mentioned. Here the way of Being of the entities is considered, their organization or structuredness. For instance, when we speak about the world of mathematics, we mean the things related to mathematics regarding of their particular kind of Being or orderedness.

Another ontic sense, and the third sense of 'world', signifies not the entities that Dasein may encounter but that wherein a factual Dasein as such can be said to live: its Umwelt, its personal environment. World here has a *pre-ontological existentiell* signification. Existentiell,

in Heidegger's philosophy, means the level of individual empirical Daseins. The fact that we all have a world is an existential signification of our Being, and its existentiell dimension signifies the individual differences of the everyday environments that we all inhabit.

Finally, in its fourth sense, 'world' designates the *ontologico-existential* concept of worldhood. Worldhood itself may have as its modes whatever structural wholes any special world may have at the time, which will be explained in the following passage.

## 2.12. Worldhood of the world

Regarding this most important one, the ontologico-existential sense of "world," we should consider that "ontologically, 'world' is not a way of characterizing those entities which Dasein essentially is not; it is rather a characteristic of Dasein itself" (Heidegger, 1962, p.92). Heidegger again begins with the most familiar concept of the world and then tries to get beyond it to reach a more precise concept. "That world of everyday Dasein which is closest to it is the environment" (Heidegger, 1962, p.94). He calls the encounter of everyday Dasein with other entities "dealing with." I mentioned that dealing with and encountering other entities is founded on taking care, and taking care is founded on care, which is one of our existential fundamentals. "Care as the constitution of the Being of Dasein uncovers the world" (Heidegger, 1985, p.169). It was also mentioned that taking care, unlike scientific knowledge, is mainly by manipulating and using things, which is not blind and has its own kind of knowledge, which is more basic than scientific knowledge.

On the other hand, Readiness-to-hand is Heidegger's expression for our encounter with "equipment." But what is equipment ontologically? Heidegger describes it in *Being and Time*:

"Taken strictly, there is no such thing as equipment. To the being of any equipment, there always belongs a totality of equipment, in which it can be this equipment that it is.

Equipment is essentially 'something-in-order-to ...'; A totality of equipment is constituted by various ways of the 'in-order-to,' such as serviceability, conduciveness, usability, manipulability" (Heidegger, 1962, p.97).

There are three important concepts here: the totality of equipment, the structure of in-order-to, and involvement. We get involved with things. Involvement enables them to get "freed". When equipment gets free, it gets involved in a totality of equipment. It comes out of itself. It actually refers itself to its in-order-to, which puts it into a network of other references. "In the 'in-order-to' as a structure, there lies an assignment or reference of something to something" (Heidegger, 1962, p.97). There is always a totality of equipment, the parts of which refer to each other. Every piece of equipment has an in-order-to that refers to something else. This network of references makes a sight (Umsicht) more fundamental than theoretical knowledge. Heidegger calls this sight "circumspection." We, by our involvement with equipment, let them refer, and allowing them to refer actually means letting them be, since the Being of equipment is reference.

However, Heidegger thinks that before any involvement or dealing with the ready-to-hand, the world is present there. The world in this encounter is the environment itself. If no problem occurs in the referring process, the world as world does not show itself, but the world (in its ontical sense) becomes prominent when a problem occurs. In these cases, one or more references are disrupted. This phenomenon Heidegger calls obtrusiveness.

The structure of the being ready-to-hand is characterized by reference. "It has in itself the character of having been assigned or referred" (Heidegger, 1962, p.115). It refers to a 'towards-which,' and this reference is the ontological structure of the equipment. Dasein's involvement lets it refer to the Being of a ready-to-hand. Finally, all of these references have an assignment to the person who is to use them. A hammer is to pound the nails, which is to



fast the woods, which in turn is to make a shelter to preserve Dasein. There is always a totality of involvements that determines for each ready-to-hand its reference, and the totality of involvements is the same environing world that is lit up by circumspection. However, “the totality of involvements itself goes back ultimately to a ‘towards-which’ in which there is no further involvement. “This ‘towards-which’ is not an entity with the kind of Being that belongs to what is ready-to-hand within a world; it is rather an entity whose Being is defined as Being-in-the-world” (Heidegger, 1962, p116). This is Dasein. When obtrusiveness happens, this totality of references shows up, and Heidegger believes that in this showing up, the world manifests itself: always as an interruption, a ‘problem’

Heidegger thinks that, in an involvement, while the world has not yet shown itself and so the referring process has not been disrupted yet, we are encountering the ready-to-hand (equipment) in itself. Here, the “thing in itself” is different from what, for example, Kant used to assume. The thing in itself is not something separated from Dasein. Actually, its Being comes from Dasein's encounter with it, which lets the ready-to-hand be. For equipment, Being consists of “getting free” by being “allowed to” refer in the practical interaction. It is thereby revealing itself and showing up. "To say that the Being of ready to hand has the structure of assignment or reference means that it has in 'itself' the character of having been assigned or referred" (Heidegger, 1962, p.115).

This was a brief explanation about how we get along with the ready-to-hand, equipment or tools. But what about the present-at-hand? What about a theoretical encounter with things?

As mentioned before, theoretical knowledge is obtained after stopping with the practical manipulation of things and instead starting or purely look at them. Dreyfus writes: "The theoretical attitude presupposes a withholding of the practical attitude [...] the theoretical

stance is merely what is left over after the cessation of practical activity" (Dreyfus, 1995, p79).

Heidegger also asserts that:

"When concern holds back from any kind of producing, manipulating, and the like, it puts itself into what is now the only remaining mode of Being-in, the mode of just tarrying alongside [...] This kind of being towards the world is one which lets us encounter entities within-the-world purely in the way they look" (Heidegger, 1962, p.88).

In such an encounter with the entity, it is separated from the context in which it was working and is studied outside of the environment within which it used to get its meaning. This is the process that Dreyfus calls decontextualizing. Here, for example, the hammer's heaviness is no longer its property in such an environment; it is rather what we can call an aspect of that entity.

"The entity before us, which we already know circumspectively as a hammer, has a weight- that is to say, it has the property of heaviness: it exerts a pressure on what lies beneath it, and it falls if this is removed. When this kind of talk is so understood, it is no longer spoken within the horizon of [...] an equipmental whole and its involvement-relationships" (Dreyfus, 1995, p81).

This is about our understanding and its effect on knowledge. Understanding is one of the most important concepts in Heidegger's philosophy. Dreyfus quotes from Heidegger some assertions that emphasize the importance of Dasein's understanding:

"Why is it that what we are talking about – the heavy hammer – shows itself differently when our way of talking is thus modified? Not because we are keeping our distance from manipulating, nor because we are just looking away from the equipmental

character of this entity, but rather because we are looking at the available thing which we encounter, and looking at it 'in the way' as something occurrent. The understanding of being by which our concerned dealings with intraworldly entities have been guided has changed over" (Dreyfus, 1995, p.81).

However, this theoretically studied entity is not separated ontologically from Dasein. It is ontically separated. Frede writes: "The independent thing that is dealt with and categorized in all our experience and determined by scientific thought remains in its very Being separate from the subject" (Frede, 2007, p.61). This separation of object from subject arises from the dichotomy between them. Again, Frede declares that: "such a rift for Heidegger is not a necessary presupposition; it is rather the result of the philosopher's mistaken theoretical stance and leads to what Heidegger calls a splitting asunder of the phenomena" (Frede, 2007, p.61).

It was previously mentioned that the genesis of the subject-object dichotomy in a philosopher's mind is adopting the ontic attitude instead of the ontological attitude towards the world, the phenomenon that, here, Frede calls adopting the theoretical attitude toward the world. The theoretical attitude is what scientists usually use, and what modern epistemology presupposes in its study of the world. Dreyfus explains:

"one's characteristics are no longer related to one another in a concrete, everyday, meaningful way, as aspects of a thing in a particular context, the isolated properties that remain can be quantified and related by scientific covering laws and thus taken as evidence for theoretical entities" (Dreyfus, 1995, p.81).

At this point, I have mentioned what I need to describe Heidegger's perspective on the "world." However, there are some further concepts needed to understand my analysis of the

Metaverse in the next chapter. “Understanding,” “reality,” and “truth” are concepts that are equally critical in Heidegger’s philosophy.

### 2.13. Heidegger on understanding

"The previous disclosure of that for which what we encounter within-the-world is subsequently freed, amounts to nothing else than understanding the world- that world towards which Dasein as an entity always comports itself" (Heidegger, 1962, p.118).

We already know that “That for which what we encounter within-the-world is subsequently freed” is the environing world or the existentiell totality of references. Here Heidegger says that understanding is the disclosure of this environing world.

In the second part of the quotation, Heidegger implies that Dasein constantly refers itself to a “for-the-sake-of-which”, whether vague and involuntary or clear and by a plan. And this for-the-sake-of-which is what previously determined a towards-which, to play the role of a possible in-which of an involvement. Let us briefly take a look at these concepts here:

- For-the-sake-of-which (Worum-willen): This concept refers to the ultimate goal or purpose that human beings are striving towards in each of their actions and projects. Heidegger believes that our actions and projects are always directed towards some ultimate goal or purpose. This goal or purpose is not something that is explicitly stated or consciously known but is rather usually implicit in our everyday activities.
- Toward-which (Wozu): This concept refers to the things, goals, or objects that we are striving towards in our actions and projects. These things or objects are chosen based on that "for-the-sake-of-which," and they give direction and meaning to our activities.

- In-which: This concept refers to the context or environment in which our actions and projects take place. This context is shaped by the world, and it provides the conditions for our activities to take place.

There is a relationship between the worldhood of the world and the structure of understanding. Heidegger in a brief paragraph says:

"Dasein always assigns itself from a 'for-the-sake-of-which' to the 'with-which' of an involvement; that is to say, to the extent that it is, it always lets entities be encountered as ready-to-hand. That wherein Dasein understands itself beforehand in the mode of assigning itself is that for which it has let entities be encountered beforehand ... the structure of that to which Dasein assigns itself is what makes up the worldhood of the world" (Heidegger, 1962, p.119).

The practical familiarity of Dasein with the world is the origin of this understanding. Understanding holds itself in this familiarity and makes involvement possible. Heidegger calls the relational character of these relationships "signifying." (be-deuten). This signifying is the base of this whole chain:

"In its familiarity with these relationships, Dasein signifies to itself: in a primordial manner, it gives itself both its Being and its potentiality-for-Being as something which it is to understand about its Being-in-the-world. The 'for-the-sake-of-which' signifies an 'in-order-to'; this, in turn, a 'towards-this'; the latter, an 'in-which' of letting something be involved; and that, in turn, the 'with-which' of an involvement" (Heidegger, 1962, p.120).

These relationships also make up a coherent totality, and under the totality of this signifying, everything finds its meaning. Heidegger calls this totality "significance."

Significance is the world that Dasein finds itself in, where it encounters other entities and allows them to be involved, which is the structure of their Being.

In *What is a Thing*, Heidegger criticizes Kant's definition of understanding. "General logic, which defines the judgment as the relationship of the representations of subject and predicate, knows the understanding as the faculty of connecting representations" (Heidegger, 1967, p.186). He thinks that this kind of definition is correct but it is not enough. He believes more is needed because this still limits the relationship to mere causality. Instead, he suggests: "The connection between subject and predicate is not merely a connecting in general, but a determined connecting every time [...]. Let us recall the objective judgment 'the sun warms the rock.' Here sun and rock are represented objectively in that the sun is conceived of as the cause, and the rock's becoming warm as the effect" (Heidegger, 1967, p.186). World in Heidegger's view is not a set of causes and effects, but it is a totality of references that open up simultaneously together, which makes everything "be" and of course meaningful. The most important point about understanding is that although we explain different portions of a whole successively, the whole process which we understand happens simultaneously.

Heidegger sums up this general relation in this paragraph:

"To say that in existing, Dasein is its 'there,' is equivalent to saying that the world is 'there'; its Being-there is Being-in and the latter is likewise 'there,' as that for the sake of which Dasein is. In the 'for-the-sake-of-which,' existing Being-in-the-world is disclosed as such, and this disclosedness we have called 'understanding.' In understanding the 'for-the-sake-of-which,' the significance grounded therein is disclosed along with it. The disclosedness of understanding, as the disclosedness of the 'for-the-sake-of-which' and of significance equiprimordially, pertains to the entirety of Being-in-the-world. Significance is based on which the world is disclosed as such. To say that the 'for-the-

sake-of-which' and significance are both disclosed in Dasein means that Dasein is that entity which, as Being-in-the-world, is an issue for itself" (Heidegger, 1962, p.182).

In this passage, Heidegger is discussing the relationship between Dasein (human existence) and the world. He begins by saying that Dasein's existence is characterized by its "there," meaning that Dasein always finds itself in a particular context or world. This world is not a separate entity from Dasein but is inseparable from its Being. Being-there (Dasein) is Being-in (existing within) the world.

It was mentioned that the concept of the "for-the-sake-of-which" serves to explain how the world is disclosed in its significance to Dasein. The "for-the-sake-of-which" refers to the purpose, goals, or concerns that give meaning and direction to human existence. It represents the framework in which Dasein understands and deals with the world.

Understanding, in Heidegger's sense, is the mode through which the "for-the-sake-of- which" and its significance are disclosed to Dasein. Understanding is not just intellectual comprehension but it involves an intimate attunement to the world and its meaningful possibilities. Through understanding, Dasein grasps the significance in its projects and concerns. I should remind us here that all these relational references happen during our practical everyday life while dealing with things when they are ready-at-hand.

Significance, in Heidegger's view, is fundamental to the disclosure of the world. It is the basis upon which the world is revealed and understood. The disclosure of the "for-the-sake- of-which" and "significance" is not separate from Dasein's existence but is inherent in its being-in-the-world. The disclosedness of understanding encompasses both the "for-the-sake- of-which" and significance.

By stating that the "for-the-sake-of-which" and significance are both disclosed in Dasein, Heidegger emphasizes that Dasein is the entity that is intrinsically concerned with its own existence and the world it inhabits. Dasein is not a passive observer of the world but an active part within the world in the process of its disclosure and interpretation.

#### 2.14. Reality

In Heidegger's view, the common perspective on reality in modern philosophy is generally affected by a misunderstanding consisting in adopting an ontic level instead of an ontological level of study, as pointed out above. Heidegger thinks that the first meaning of "world" – the ontical concept that signifies the totality of entities that can be present-at-hand within the world – is limited to the entities and can't go further to grasp the meaning of their Being.

"Entities are quite independent of the existence by which they are disclosed, the acquaintance in which they are discovered, and the grasping in which their nature is ascertained. But Being 'Is' only in the understanding of those entities to whose Being something like an understanding of Being belongs" (Heidegger, 1962, p. 228).

This paragraph contains two seemingly contradictory claims. The entities are supposed to be something separate from our understanding and existence, which means whether we and our understanding are in the world or not, other entities exist. This makes Heidegger a realist. But the fact that he claims that Being 'is' only in our, Dasein's understanding makes him an idealist.

Heidegger singles Dasein out because it is the only entity that reflects upon Being and cares about it. Being is disclosed for Dasein, and this means for Heidegger that only Dasein has existence. On the other hand, "along with Dasein as Being-in-the-world, entities within-the-world have in each case already been disclosed" (Heidegger, 1962, p.251). In other words,



our care as an existential characteristic of us, opens Being for us, and the entities-within-the-world are always already disclosed for us while existing. Dasein's Being and the world are disclosed simultaneously and are not two separate realms in their disclosedness.

"[Dasein] is co-discovered in the world of concern precisely in the public world. The world is at any given time not only disclosed, in letting something be encountered in concern, in its meaningfulness as the oriented wherein of the being of Dasein. Dasein is itself there relative to its Being-in, itself there for itself. Dasein in its being-there-with, intimately involved in what is of concern, is itself discovered in a certain sense" (Heidegger, 1985, p.253).

Heidegger explains that these assertions imply realism, for they do not deny the existence of the present-at-hand world and they suppose reality as something that is the case. Still, at the same time, they are incompatible with any kind of realism, because realism assumes the reality of the world as something that needs proof, and thus a defence against skepticism: an idea that is rejected here.

"To have faith in the reality of the 'external world,' whether rightly or wrongly, to 'prove' this reality for it, whether adequately or inadequately; to presuppose it, whether explicitly or not – attempts such as these which have not mastered their own basis with full transparency, presupposes a subject which is proximally worldless or unsure of its world, and which, must, at the bottom, first assure itself of a world" (Heidegger, 1962, p.250).

Realism confronts the world in its ontic view, in the attitude of present-at-hand, not as ready-to-hand. "Indeed, realism tries to explain reality ontically by real connections of interaction between things that are real" (Heidegger, 1962, p.251). The result of such a misunderstanding is that a united phenomenon the world breaks up into separated subjects

and objects so that it would be the philosopher's duty to show their connection. However, Heidegger believes that when the world is understood instead in the attitude of ready-to-hand, both Dasein and other entities are disclosed at the same time, and in this disclosedness, the referencing relationships among entities that make the world as well as the connect between subject and world are always already formed. And this whole process is a unique and constant phenomenon. Dreyfus writes: "Once we understand Dasein as 'being in the world existingly and the world as an organized pattern of practices and equipment that forms the background on the basis of which all activity and thought makes sense, we see that the world must be disclosed along with Dasein" (Dreyfus, 1995, p.249). So, realism in this Cartesian and post-Cartesian sense does not encompass Heidegger's philosophy because of realism's lack of this ontological understanding of the world.

However, Heidegger thinks that realism has a privilege over idealism. There is a severe deficiency in idealism that is no less severe than in realism.

"But as long as idealism fails to clarify what this very understanding of Being means ontologically, or how this understanding is possible, or that it belongs to Dasein's state of Being, the interpretation of reality which idealism constructs is an empty one" (Heidegger, 1962, p.251).

In realism, the problem was seeking Being in the relations of entities, and here the problem is that the entities depend on Dasein for their existence. But, if he is neither a realist nor an idealist, how does Heidegger deal with the paradox?

To answer this question, we should first be reminded that Heidegger never denies independent entities. His first concept of world, as mentioned before, was the world that is filled with entities. However, he determines that Being is not independent of Dasein.

"only because Being is 'in the consciousness'- that is to say, only because it is understandable in Dasein- can Dasein also understand and conceptualize such characteristics of Being as independence, the 'in-itself,' and reality in general. Only because of this are 'independent' entities, as encountered within-the-world accessible to circumspection" (Heidegger, 1962, p.251)

Thus, for him the idea of objects being independent from Dasein is derivative to their being thought by Dasein. If there were no Dasein, there would be no concept of independence. There also would be no meaning and no concept at all. And more importantly, there would be no understanding of Being. Heidegger says:

"of course, only as long as Dasein is (that is, only as long as an understanding of Being is ontically possible), 'is there' Being. When Dasein does not exist, 'independence' is not either, nor 'is' the 'in-itself.' In such a case, this sort of thing can be neither understood nor not understood. In such a case, even entities within-the-world can neither be discovered nor lie hidden. In such a case, it cannot be said that entities are, nor can it be said that they are not. But now, as long as there is an understanding of presence-at-hand, it can indeed be said that in this case, entities will continue to be" (Heidegger, 1962, p 255).

Eventually, Heidegger is telling us that although we do not know what it would be like if there were no Dasein, we know that we, by our understanding, make independence and Being possible, and so what is standing there is independent of us. "In short, making sense of independent reality is something that we do, but what there really is does not depend on us" (Dreyfus, 1995, p.258).

In sum, for Heidegger, the reality of a being, of an entity is not solely determined by its objective existence but is contingent upon its significance and relevance to our mode of

being-in-the-world. In other words, the realness of something lies in its ability to reveal its ontological depth and interconnectedness within the context of our existence. Something is real when it reveals itself as meaningful within our lived experiences. The reality of a being or an entity is not solely determined by its objective existence but is contingent upon its significance and relevance to our mode of being-in-the-world. In other words, the realness of something for Heidegger lies in its ability to reveal its ontological depth and interconnectedness within the context of our existence.

## 2.15. Truth

Heidegger's interpretation of ancient Greece's understanding of the term Being and its equivalency with seeming has always been controversial. According to Heidegger's assumption, everything we sense has two aspects: a seeming and a Being. He thinks that these two terms have the same origin, and, other than in English, they share the exact same word in German: Schein, verb: Scheinen. "We say the moon shines. This does not just mean that it has a shine, it casts a certain brightness, but that stands in the heavens, it is present ... seeming means exactly the same as Being here<sup>5</sup>" (Heidegger, 2000, p.105).

He thinks that if we understand the meaning of Being from ancient Greece's perspective, we can perceive this same origin for both seeming and being<sup>6</sup>. He briefly mentions that "for the Greeks, standing-in-itself means nothing other than standing-there, standing-in-light. Being means appearing. "Appearing does not mean something derivative, which occasionally meets up with Being. Being essentially unfolds as appearing" (Heidegger, 2000, p.107). Being discloses itself by appearing. "Beings as beings are true. The truth as such is in being. This says that what shows itself in its way stands in the unconcealed—the unconcealed, as

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<sup>5</sup> In German other than in English, shine (shining of the moon or a lamp, Schein) and appearance (Schein) have the same word.

<sup>6</sup> The word for truth in ancient Greek is "Aletia". Lethia means concealment and adding an A to the word makes it negative which means unconcealment.

such, stands in showing itself. Truth, as un-concealment, is not an addendum to Being" (Heidegger, 2000, p.107).

“Being” or “phenomenon” is un-concealment (aletheia). Heidegger determines that Being is possible in prominence, appearing, showing, and briefly in presence. This is the common genesis of seeming and Being, where Being and appearance come together (the program of phenomenology), so that Heidegger consequently claims that the only way to know about the meaning of Being is through phenomenology. Also, this is why Heidegger believes that appearance and showing are intrinsic characteristics of entities.

So Dasein itself is “in the truth”. "Dasein, as constituted by disclosedness, is essentially in the truth. Disclosedness is a kind of Being which is essential to Dasein. 'There is' truth only as so far as Dasein is and so long as Dasein is" (Heidegger, 1962, p.269).

## 2.16. Summary and important points

Heidegger does not deny the reality of entities. As mentioned before, if there were no Dasein in the world, other entities would still remain. Their mode of Being though depends on Dasein's existence. Being and truth hang always together. The truth is disclosedness and disclosedness is the un-concealment of something in Dasein's openness (for Dasein), so if there were no Dasein, there would be no Being or truth. The entities would still be there, but we can't say they exist with concrete properties. We can't describe them in any way because the world without Dasein is not something that we can conceive of, as it lacks any concrete perspective under which it could assume properties. However, we know there would be no independence (of things from Dasein and from each other) without Dasein.

Another crucial point is that the disclosedness of both Dasein and other entities happens simultaneously. Other entities are disclosed right when Dasein is there, and, vice versa,

Dasein is disclosed through its interaction with things – which means they both are disclosed coincidentally.

So briefly, Being and truth are, to the degree that Dasein is. Dasein discloses entities, and Dasein is simultaneously disclosed with them, and their independence is meaningful in Dasein's understanding. This makes Heidegger neither a realist nor an idealist. Not an idealist because although Being depends on Dasein, entities remain in the world even if Dasein does not exist. Not a realist because entities are not separate beings, and they depend in their ways of Being on Dasein.

Traditional epistemology presupposes knowledge as a particular mode of Dasein's Being in which Dasein encounters the world in the attitude of present-at-hand, in which Dasein abstains from any possible manipulation and just stares at the entities to define them. This, as mentioned before, is decontextualizing, it means getting something that is ready-to-hand out of that totality of references that makes the structure of the world. This misunderstanding is what Heidegger describes as adopting the ontic level of study instead of the ontological level.

It was also explained before that the most fundamental, basic, and immediate attitude toward the world is the practical attitude of interacting with things being ready-to-hand. Of course, this kind of getting alongside the world is possible based on Being-in. Being-in (be consistent here with Being-in and Being in) allows us to be involved and get alongside, so entities refer to their references, and this means for Heidegger, “allowing” entities to “be”. And the relational characteristic of these references - which Heidegger calls significance – consists in “the worldhood of the world”, which Heidegger also calls the enviroing world; for which all ready-to-hands or tools, being nothing but references, are “freed”.

Heidegger thinks that the most fundamental encounter with the world, the world we find ourselves in, which gives everything its meaning, is by involvement, founded on Being-in

and care. So, he claims that we should determine knowledge at this ontological level. And, of course, as explained before, there is no subject-object dichotomy at this level. We have existence, so we care, so we have our special Being-in, so we are involved, and through this involvement and taking care, we simultaneously allow other entities to refer to a totality of equipment that makes them meaningful. This whole process is called disclosedness or unconcealment: his description of “truth” Dasein itself is disclosedness, is truth, and that is why we always presuppose the truth in the world. Since Dasein and other entities are co-disclosed, and since the Being of the world and the entities are through Dasein’s understanding, there is no dualism between the world and Dasein. Just one, undivided phenomenon shows itself through Dasein’s understanding and openness on the ontological level

With this, I have explained the most important concepts needed to interpret the Metaverse based on Heidegger’s philosophy. I want to inquire about the meaning of reality and truth in the Metaverse. Some people say that the Metaverse is a new world. In the next chapter, I will take a closer look at claims like this in order to make them more transparent, based on Heidegger’s perspective.

## Chapter 3:

### Is the Metaverse a real world?

#### 3.1. What we know about the Metaverse

“Metaverse” as a term was first used in the novel *Snow Crash* by Neal Stephenson in 1992. It was a science fiction Novel, and the term served to describe a virtual environment in which the avatars could interact with each other. The term was widely used after that in the digital world, especially by its huge players like Facebook, Microsoft, and Google, which are all investigating virtual and augmented reality technologies. Each company has its products of the Metaverse in which people can engage and connect with each other.

The Metaverse is a term that has recently gained a lot of attention in the technology world through the recent advancements in virtual and augmented reality, and Mark Zuckerberg’s offensive in particular has made the Metaverse a prominent topic. In general, it is a virtual space where people can engage in a variety of activities related to different fields, such as business, education, art, play, socializing, etc. People can interact with each other by their avatars, in a common virtual environment which constitutes a visual and auditory world. Physical motions, voices, and actions of the avatar are controlled by the user through a set of equipment.

One important point that makes the Metaverse increasingly like a new world is that it is not a single platform or application, but a set of technologies, applications, and platforms that work together to make an interactive and immersive experience in a digital world. It includes virtual reality and augmented reality technologies, social media platforms, gaming platforms, and other types of digital experiences that allow users to interact with each other in a virtual space.



One of the important features of the Metaverse is the use of avatars, as mentioned Avatars are the representations of the users in the digital environment. They can be similar to or completely different from the user. The avatar provides a more interactive and immersive experience in gaming, social media, or any other virtual experience by making the experience more like real experiences. The avatar plays the role of the subject in this digital world

Another important aspect of the Metaverse is providing virtual environments. There exist potentially infinitely many different environments based on the activity engaged in. People can attend a party, a meeting, a professional office job, a game, or any other activity from different parts of the world in a predesigned environment. These shared visual-auditory environments can be accessed through via augmented reality devices, or traditional computing devices. “Environment” is, as we saw, also one of the keywords of Heidegger’s philosophy

As mentioned, the spectrum of the activities in the Metaverse has a variety of different fields. It has the potential to dramatically change the way we interact, work, and communicate with each other. Removing physical limitations as well as physical distances among users provides a wide range of abilities for designers and users to exert unprecedented creativity in designing both new environments and new activities in the Metaverse. Virtual classrooms with a more engaging and interactive environment are getting created, new kinds of arts and entertainments emerge, and meetings and conferences can be held in much more interactive spaces.

The Metaverse, based on what the main players of its fields announce, is supposed to provide a new interactive visual-auditory world; a digital world that is able to create an immersive and deep real-life experience that can replace or expand features of the real world to a considerable degree.

### 3.2. What is the Metaverse philosophically? A distinction.

The previous description is what users and creators would say about the Metaverse. Virtual reality, augmented reality, virtual space, virtual world, digital subject; there is a long list of concepts that all have their definitions in the world of technology. The world of technology is, with Heidegger, an ontological conception of the world. Previously it was mentioned that for example, the world of mathematics refers to the things related to mathematics regarding their particular kind of Being. They are all mathematical. Here, the world of digital technology refers to the organization of things that are digital.

Before talking about any other aspects of the Metaverse, we must distinguish two different levels of confronting it as a phenomenon.

The first one is the Metaverse on the level of being present-at-hand. From a scientific and physical perspective, Metaverse is a series of data structures, provided by a set of electrical hardware that is connected to the body of the user to create a virtual experience. This electrical system has the function of providing visuals on the screen of a goggle and sounds to be heard in its speakers by the user. These pictures and sounds are created according to the commands of a processor processing incoming electrical impulses produced by a set of sensors connected to the user's body and to other places in the digital environment. That processor is programmed to make and synchronize relevant pictures and voices based on what comes from the sensors which are constantly gathering information about what the user is doing at a given moment: information such as the angle of his head, his fingers' position, his body movements, his voice, etc. Of course, this process is connected to a network capable of synchronizing with the data structures of other users. A description like this one corresponds to what Heidegger calls the theoretical or scientific level of confronting a phenomenon. Here, the thing is present at hand.

The second level of interaction is the Metaverse under the aspect of being ready-to-hand: when we are connected to the equipment and are immersed in the virtual environment, which also means that we are not thinking or asking about it. It is not sitting in front of us, and it is not the subject of our inquiry. In sum, our encounter is not theoretical or scientific. We are rather immersed in it, talking to other avatars, using virtual objects, responding to different stimuli, and experiencing different kinds of feelings like fear, laughter, thrill, or sadness. Here we are not dealing with data structures, nor are we actively aware of the set of equipment that connects us. This corresponds to Heidegger's sense of the ontological meaning of 'world'. Here we are practically manipulating and engaging with things and other users in the Metaverse, and this is a different level of encountering it, constituting a difference in its being.

When we ask about the Metaverse to find out if it is a new world, the second, experiential level of inquiry is what should be considered. The theoretical level of knowledge doesn't provide a sense of the world in which we can find out about its way of Being. As it was explained in the previous chapter, the everyday environment as the nearest sense of the world shows itself through circumspection, and circumspection is a kind of sight that reveals the world and things in their disclosedness, in their ontological structure. We are best connected with a phenomenon in its Being while it is ready to hand. So, based on Heidegger, we leave the theoretical investigation about the Metaverse to the computer experts and confine our investigation to find out what it is like in its Being while it is ready to hand.

The Metaverse can be seen as a tool that can create something like a real experience for the user. Technology in general seems to be a set of tools that helps us to achieve our aims more easily and in a shorter period of time, as well as create new possibilities for more advanced aims. But is it the best perspective on the essence of technology? Heidegger has a lot more to

say about this. His main views about technology can be found in his popular essay *The Question Concerning Technology*.

### 3.3. Heidegger's views on technology

Heidegger's thoughts about the essence of technology provide a good base to understand the general concept of the Metaverse from an ontological perspective. His viewpoint is phenomenological and directed toward finding a way to technology's specific way of Being. He seeks a "free" relationship with technology. "The relationship will be free if it opens our human existence to the essence of technology" (Heidegger, 1977, p.288). He seeks the essence of technology as it concerns human existence. However, here again, he starts from the most accessible characterization of technology: "One says: Technology is a means to an end. The other says: Technology is a human activity" (Heidegger, 1977, p.289).

The first viewpoint doesn't persuade him. He accepts that such definitions are correct since technology is obviously a means to an end, but instrumentality doesn't tell the utmost truth about the essence of technology. I should mention here that "correct" and "true" in Heidegger are different. "We must seek the truth by way of the correct. We must ask: What is the instrumental itself? [...] A means is that whereby something is affected and thus attained. Whatever has an effect as its consequence is called a cause" (Heidegger, 1977, p.290).

Considering technology as a means to an end is based on causality. Technology is the cause, and the end is the effect. Here Heidegger, in order to make this relationship more transparent, reminds us of the four common kinds of causes that Aristotle first brought out: *causa materialis*, *causa formalis*, *causa finalis* and *causa efficiens*. Each of these has its own definition, and this description of the category of causality was widely accepted for thousands of years. The point is that Heidegger believes all these causes are finally responsible for laying something readily out before us. "Lying before and lying ready (*hypokeisthai*)

characterize the presenting of something present. The four ways of being responsible bring something into appearance” (Heidegger, 1977, p.293). Following Plato, he names this bringing-forth ‘poiesis’. This bringing forth brings things from concealment to unconfinement and this is what Heidegger calls the truth - as mentioned in section 2.1.5.

Technology thus is on the one hand a means to an end, where being a means lies in instrumentality and instrumentality lies in causality. However, all different kinds of causes are responsible for bringing out something into presence, bringing something to the fore, and finally revealing it. So, on the other hand, technology in its truth reveals something. “Technology is, therefore, no mere means. Technology is a way of revealing. If we give heed to this, then another whole realm for the essence of technology will open itself up to us. It is the realm of revealing, i.e., of truth” (Heidegger, 1977, p.295). But the question now is how technology reveals truth and thereby the world to us.

Standing-reserve (Bestand, meaning stock), on call for duty, and ready for take-off are the expressions that Heidegger uses to describe the way technology is revealing reality. All these expressions are related to a very familiar way of dealing with the world for us as modern humans: as a source of *domination*. The world in this technological perspective of a standing-reserve shows itself as something ready for domination or use, to provide everything humans need when they need it.

“Everywhere everything is ordered to stand by, to be immediately on hand, indeed, to stand there just so that it may be on call for a further ordering. Whatever is ordered about in this way has its own standing. We call it the standing-reserve” (Heidegger, 1977, p.299).

The important thing that Heidegger mentions here is that it is “man” who does this revealing, and this process happens for man. “But man does not have control over

unconcealment itself, in which at any given time the actual shows itself or withdraws” (Heidegger, 1977, p.300). Here, I assume he counters a possible objection according to which the kind of world that is revealed by technology, which is a kind of human domination over the earth, is first exerted by man, with technology as a means toward that domination. However, Heidegger believes that not everything is in control by man: domination for him is not control. This relates to the way Hegel used to describe the relationship of man with its history. Man makes history, but history itself is playing an active role that is not in the control of man. Heidegger expresses this uncontrolled power of truth through a clever expression: the call of unconcealment.

“The unconcealment of the unconcealed has already come to pass whenever it calls man forth into the modes of revealing allotted to him. When man, in his way, from within unconcealment reveals that which presences, he merely responds to the call of unconcealment, even when he contradicts it” (Heidegger, 1977, p.300).

The call of unconcealment orders man and by this ordering it is challenging him. This challenge makes man allow what is standing there to reveal itself the way it wants to. Evidently, this point confirms my above-mentioned claim that Heidegger’s position has more realist than idealist structures. Heidegger sums all of this up in one paragraph:

“Modern technology, as a revealing which orders, is thus no mere human doing. Therefore, we must take that challenge, which sets upon man to order the actual as standing-reserve, in accordance with the way it shows itself. That challenge gathers man into ordering. This gathering concentrates man upon ordering the actual as standing-reserve” (Heidegger, 1977, p.300).

So, modern technology for Heidegger is a way in which the world reveals itself to us. It specifically reveals the way in which the world is a set of measurable objects and powers that

must be ready to use: sources of energy, mines of minerals, forces of labor, etc. I mentioned this kind of revealing of the world as a collection of measurable objects in the section related to the critiques of Heidegger against Descartes (section 2.2.). The interesting point here is that although it seems it is science that is guiding technology, Heidegger believes that it is technology that is pushing, and thereby guiding, science. At first, it seems to us that technology is obeying science. However, it comes from the fact that technology shows itself only after scientific actions. Heidegger believes that it is the other way around:

“All coming to presence, not only modern technology, keeps itself everywhere concealed to the last. Nevertheless, it remains, concerning its holding sway, that which precedes all: the earliest. The Greek thinkers already knew of this when they said: That which is earlier with regard to its rise into dominance becomes manifest to us men only later. That which is primally early shows itself only ultimately to men.” (Heidegger, 1977, p.304)

In sum, the essence of modern technology is described as a revealing. The term "revealing" here refers to the process by which things in the world are made accessible and available to human beings. This is an important aspect of “revealing”. Modern technology plays a crucial role in this process by bringing forth the world exactly in the form of its being ordered as a standing-reserve, that is, as a resource or inventory that can be utilized and controlled.

Heidegger introduces the concept of "versammelndes Schicken", which can be translated as “gathering sending” or “collecting dispatching.” This concept refers to the way technology gathers or collects things and sends them forth for human use. It implies a kind of instrumentalization or enframing of the world, where everything is seen in terms of its potential usefulness or value within a technological framework. I mentioned before that

technology is actively performing its role in this process and Heidegger believes that it has an aim.

This aim is also described by Heidegger as "destining," referring to the inherent purpose or direction embedded within technology itself. "We shall call the sending that gathers [versammelndes Schicken], that first starts man upon a way of revealing, destining [Geschick]" (Heidegger, 1977, p,306). In other words, technology has its own telos, which influences and determines how things are revealed and understood in the world. This "destining" is not something imposed *by* human beings but is an inherent characteristic of technology, and thus imposed *on* human beings: as their "fate", *Geschick*, assignment.

Thus, technology does not only guide science, as mentioned previously, but also guides human endeavours - as we can currently see with the 'shock' of generative AI: re-structuring almost all of human affairs in a way that makes humans rather to technological recipients than to technological agents.

Further, Heidegger talks about a danger and an illusion. The danger he refers to is the possibility of human beings being reduced to mere orderers or manipulators of the standing-reserve. In this context, individuals are seen as agents whose primary role is to control and exploit the resources around them. This reduction of human beings to a position of instrumentalization and objectification can lead to a loss of their essential humanity and a degradation of their existence.

The illusion that Heidegger highlights is the perception that, in this technological world, human beings encounter only themselves. It creates a distorted perspective where human beings become the measure and center of all things, disregarding the inherent value and independent existence of other entities. This illusion arises from the fact that everything in the world is framed and understood in terms of its usefulness and value to human beings.



Heidegger suggests that this danger and illusion results from a misunderstanding of our relationship with technology and the world. He wants us to recognize the limitations of a technological worldview that reduces everything to a standing-reserve, and encourages us to search for a deeper understanding of our place in the world, one that acknowledges the intrinsic value and interconnectedness of all beings.

Heidegger's critiques regarding technology are interesting, but for the sake of this essay's interest, its main point is to know that technology is an enframing. The most important conclusion we can get from this perspective on the essence of technology is that the Metaverse is not simply a means to an end, but a part of a broader phenomenon that has been ruling for centuries on the way man sees his world. It is a way of seeing the world. The Metaverse is an extension of technology, so, based on what was discussed here, it is not just a tool. The Metaverse is rather another technology which reveals the world in a specific way; as a standing-reserve. This is important because it allows us to seek a wider philosophical perspective on the Metaverse

#### 3.4. Is the Metaverse a new world?

In what follows, I first approach the question by examining the relation that the Metaverse has with the physical world, as well as by comparing the different senses of "real", combining this with Heidegger's view on technology. The Metaverse present at hand, is a system that produces visual and acoustic experiences according to what we expect based on our previous experiences in the real world. Accordingly, we are justified to apply Heidegger's view on technology on it. The most important negative consequence of this application – as discussed in the previous section- is that it is not just a mere instrument. In other words, its instrumentality doesn't cover its essence as a whole. Positively, on the other

hand, we can conclude that the Metaverse reveals the world to us in a specific way. But in what specific way is the Metaverse revealing the world?

Again: If we consider the Metaverse as part of technology, we saw that the Metaverse (like technology itself) reveals the world as a standing-reserve. However, this is too general, and we need more detailed facts. My main question about the Metaverse is about its reality and worldhood. Are the objects in the Metaverse real? Is the Metaverse a new world?

Let us take a look again at the concepts that people use to describe the Metaverse. When talking to a computer expert about the Metaverse they usually have a lot to say about the reality aspects. It is reflected in the concepts like augmented reality, digital reality, etc. However, they don't usually use reality here as they use it to describe the reality of the physical world.

Anyone who experiences the Metaverse, intuitively understands that there is a difference between a table sitting in the corner of a visual space and a physical table in a physical room. The difference is not great enough to persuade the user of the Metaverse to withdraw from the reality of the visual table, and not small enough to describe it as a real table just like the one sitting in their room. That's why compound words like a visually real table or digitally real table are used to describe it. The most obvious difference between these two kinds of objects is related to their physicality. Based on this, to refer to these two different entities, I use "digital" and "physical" as adjectives.

Is Heidegger's ontology able to provide a philosophical justification to argue for the reality of objects in the Metaverse? Are things in the Metaverse philosophically real? what do adjectives like visual reality, digital reality or augmented reality, philosophically mean?

Being active within the Metaverse, a digital table is standing in front of me, other people and I see it, use it, and share it in a common environment, but what is it that makes it

different from a physical table? One may say that a physical table is made of a kind of material like wood, whose physical properties are not dependent on any human, while a digital table is just a representation of a table that is shared among the users by a system that synchronizes the currently present user's experiences, and one could then conclude that the physical table is the only real one.

However, being an entity independent from Dasein is not the criterion for something to be real for Heidegger, as we saw and I mentioned before, that based on Heidegger, things exist, as long as there is an understanding of being. It doesn't matter if the table is wooden or is just a visual representation, the table is there because Dasein "allows it to be"; because it is unconcealed for Dasein, and Dasein in the Metaverse still has the same existential characteristics. He cares, understands and lets the entities there to make references. If there is no Dasein, there is none of either table. Both kinds of tables make references to a totality of other equipment, and that is why we find ourselves in a kind of environment while using the Metaverse and not in a void. Remember that what constitutes an environment is the totality of references amongst things in there. The fact that the physically real table is made of let's say atoms but the digitally real one is made of bits is not a criterion for the reality of things in Heidegger's view. But, after all, the question still holds. Is a digital table real?

Here, one of Heidegger's quotes which was mentioned previously in the section on understanding (2.1.3) may help:

"Dasein always assigns itself from a 'for-the-sake-of-which' to the 'with-which' of an involvement; that is to say, to the extent that it is, it always lets entities be encountered as ready-to-hand. That wherein Dasein understands itself beforehand in the mode of assigning itself is that for which it has let entities be encountered

beforehand ... the structure of that to which Dasein assigns itself is what makes up the worldhood of the world " (Heidegger, 1962, p.119).

In Heidegger's philosophy, as mentioned, understanding and the worldhood of the world are closely interconnected. Heidegger argues that human existence (Dasein), is characterized by its unique capacity for understanding the world. It was mentioned that understanding, for Heidegger, is not just a theoretical cognitive process of grasping information, but a mode of being-in-the-world. It is through our understanding that we encounter and relate to entities in their meaningful contexts. It was explained previously (2.11.) that Heidegger describes this understanding as a pre-ontological practical familiarity, which involves our pre-reflective and embodied engagement with the world.

The worldhood of the world refers to the framework or background in which entities become meaningful. It includes the network of relationships, practices, cultural meanings, and shared understandings that shape our experience of reality. The worldhood of the world provides the context in which our understanding operates and determines how entities are encountered and interpreted. About the concept of being meaningful in Heidegger, mentioning the above quote once again helps to understand the importance of the relationship between understanding, meaning, and Being of the beings: " Dasein always assigns itself from a 'for-the-sake-of-which' to the 'with-which' of an involvement; that is to say, to the extent that it is, it always lets entities be encountered as ready-to-hand." (Heidegger, 1962, p.119).

Letting entities be encountered as ready-to-hand means to let entities be in the first place since the Being of a ready-to-hand is nothing but reference. Dasein, in fact, lets the entities refer to the network of involvements that belongs to the totality of instruments that make the environment. The point here is that Dasein in this signification lets himself both be what he is

and makes what he possibly can be as well: "In its familiarity with these relationships, Dasein signifies to itself: in a primordial manner, it gives itself both its Being and its potentiality-for-being as something which it is to understand about its Being-in-the-world." (Heidegger, 1962, p.120). In sum, according to Heidegger, understanding and the worldhood of the world are interrelated. Our understanding is always grounded in and shaped by the worldhood of the world, and at the same time, our understanding plays a role in the ongoing formation and modification of the worldhood of the world.

In the last quote, Heidegger highlights that Dasein assigns himself to the world through its practical understanding and involvement with entities. Dasein frees entities as being ready-to-hand, which means that they are encountered in their usability and practical significance rather than as mere objects. This assignment occurs within the context of the worldhood of the world. In sum, understanding is the mode in which Dasein engages with and interprets entities, and the worldhood of the world provides the overall framework that shapes the meaningfulness and interpretation of those entities; what he calls significance. Same thing happens in the Metaverse. There too, we find ourselves in an environment full of different objects. We start to get involved with the objects there and let them refer to each other. By this, we both allow the overall network of significance to grow and simultaneously we understand the environment.

On the other hand, as I just mentioned above, understanding plays a crucial role in our relationship with the Being of entities. Understanding is the mode through which we encounter and interpret the Being of entities. Understanding allows us to disclose the Being of entities. Heidegger argues that the Being of entities is not something separate or hidden from our understanding but is rather revealed through our engagement with them. Our understanding uncovers or discloses the Being of entities, bringing them into meaningfulness and making them available for our interpretation, and by doing these it lets them be. In this

sense, understanding is a mode of revealing or uncovering the Being of entities. It allows us to go beyond mere appearances and to grasp the underlying essence or reality of entities. Through understanding, we access the ontological depth and significance of entities and recognize their place within the larger framework of being-in-the-world. Understanding is a fundamental mode of our relationship with the Being of entities and the meaningfulness of our existence in the world.

However, it is important to remember once again that Heidegger rejects the traditional view of reality as a collection of fixed and isolated objects that exist independently of our engagement with them. Instead, he emphasizes the interconnection between our understanding, our existence, and the reality of entities. For Heidegger, the reality of entities is intertwined with our understanding and interpretation of them within the worldhood of the world. Our understanding contributes to the ongoing formation and modification of the worldhood of the world, shaping our experience and interpretation of reality.

Based on the relationship between understanding, the worldhood of the world, and reality, I believe we can't simply reject the reality of the entities in the Metaverse. Dasein is present there, he is understanding there, and so he is practically dealing with things and this allows things there to make references and it means that there too, Dasein is assigning itself from a 'for-the-sake-of-which' to the 'with-which' of an involvement which lets things to be by allowing them to refer, and finally through the network these references make, an environment -which is the nearest world to Dasein- appears. Of course, we understand that something is missing when we describe a merely virtual table as real because although it is familiar to us, we recognize that it is not referring to the environment it is in, exactly like a physical table in a physical environment. In one word, both the tables are real but differently real.

David Chalmers, in his book *Reality+*, after a long debate and lots of different arguments related to the reality of objects in the Metaverse says: “Still, virtual kittens are perfectly real, just as robot kittens [...] they are simply different, that’s all” (Chalmers, 2022, p.200).<sup>7</sup>

### 3.5. The difference between physical and digital reality

I emphasize the word “difference” because it might seem that a digitally real table is less real than a physically real table. In this kind of comparison, physical reality is the criterium, and intuitively, digital reality stands at a lower level because it is a simulation and thus comes logically only after. However, philosophically, in order to allocate adjectives like “less” or “more”, we need a philosophical base. The fact that a digital table imitates a physical table or comes after it is not enough to consider it less real. There are things that are first designed digitally and after lots of experiments and considerations get built physically. There are things that were made by scientists only after they first saw them in the digital world. The

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<sup>7</sup> Chalmer’s book *Reality+* is one of the most recent sources related to this thesis topic. However, in this book, the meaning of the concept of ‘real’ and ‘reality’ is different from Heidegger’s philosophy. Chalmers provides five ways of thinking about what is real (pp.108-114); none of them is Heidegger’s definition of reality.

- 1- Reality as existence. To be is to be perceived or being able to be perceived.
- 2- Reality as causal power.
- 3- Reality as mind-independent: reality is that which, when you stop believing in it, doesn’t disappear.
- 4- Reality as non-illusoriness: Something is real when it is the way it seems and something is illusory when it is not the way it seems.
- 5- Reality as genuineness: to understand what it is for something to be real. We must look at how normal English speakers use the word “real.”

As mentioned before, reality in Heidegger is neither objective nor subjective. The above points 1,4, and 5 are all subjective; point 3 is objective and causality (number 2) is a criterion that makes reality merely objective. So, Chalmers's concept of the word real is different from the concept in my thesis. He also never provides a clear definition for ‘world’ in his book.

Furthermore, Chalmers stays at the level of philosophy that Heidegger describes as the Cartesian level. This implies that his philosophy remains at the ontic level, and doesn’t touch the ontological level. The importance of Dasein’s existence for “world” and “reality” is not considered in this book. However, even Chalmers who is not a phenomenologist and is in no sense a Heideggerian, at one point in the book suddenly admits that: “In some cases, human minds may play a role in making an object what it is. What makes a table the object that it is? In part, we use it as a table. A statue is what it is partly because we built it and regard it as a statue” (Chalmers, 2022, p.195). Here, he opens the door to considering the role of the subject for the world for a short time. He mentions the important existential interconnection between human beings and the world. Still, he never continues or thinks more about other aspects of this relationship, like the role they play on both sides, existence and Being. Again, in his book, he never reaches the ontological level.

digital world is the inspiration source for making many new inventions. As was mentioned, a more defensible attitude toward this issue is to use the adjective “different” instead. Based on this, I use different realities instead of more or less real in this thesis. This is important for me as it is related to the reality of the objects in the Metaverse.

As was mentioned before, one important parameter that makes this difference is related to the material these two worlds are made of. A digital table is made of bits while a physical table is made of atoms and molecules. This fact results in a different kind of experience while confronting them. What we experience when we see a table in a digital environment is made of bits, we can change its color or even its dimensions just by some simple clicks, or we can simply change its location without any force or physical effort. But dealing with a physical table is a totally different experience. There is less freedom and more fixed aspects. To change the color or dimensions we need physical effort and it takes more time and energy. The totality of the references that it makes with other things is different from that of the digital table, as will be shown shortly.

In sum, taking care is to deal with things. We by using and altering things let them refer and the more they make references the more reality they assume. The kind of Being of ready to hand is reference, and the kind of references that things make in the digital world and in the physical world are different. This fact makes the kind of Being of things in these two worlds different from each other.

For example, a physical chair stands in a different set of references from a digital one. It refers to sitting, resting, and handling the weight of a Dasein while sitting. The usability and meaning of a physical chair consist of these references. A chair is something that handles our weight while sitting. That’s why when we sit on a box, others may say “This is not a chair”. “This is not a chair” means the box doesn’t have the references a chair has. It refers to



carrying things or keeping them. So, they mean that we shouldn't sit on it. A physical chair also makes different references. For example, let's suppose a carpenter's shop where a chair is going to be made. A possible set of references may be the reference of the hammer to the nails, to fastening the woods, to assembling the chair, and finally to serving the Dasein that has ordered the chair. This chain of references constitutes meaning of a part of the carpenter's job and his shop.

A digital chair, on the other hand, refers to a different set of references. It is not supposed to carry the weight of Dasein which is the most important meaning of a chair. It represents a usual chair but lacks the usability of a physical one. A possible reference of a chair in a digital room may be filling the space or being an ornament to make the space more appealing, or to make the sense that people are sitting around a table during a meeting. A digitally real table doesn't refer to serving a Dasein who is tired from a long walk. Generally, the representation of both chairs may be the same but the way they exist is different. It makes them be differently real.

### 3.6. The Metaverse as a world

The difference is not only limited to the individual objects. The objects sure constitute a different sense, however when we are experiencing the Metaverse we sense that we are Daseins in a different world. Although things seem to be like what they are in the physical world, we can't expect the same as we used to expect from them. Based on this, there is an enthusiasm to explore and know this new world even though it seems to be familiar to us. In Heidegger's philosophy, this sense of the world is interpreted as the totality of the references we live with. So, we should consider that we are not talking about other meanings of the world. We are not talking about the world as something including other objects or even things

that are all digital. We are talking about the worldhood of the world in these two different statues.

In Heidegger's philosophy, the worldhood of the world is a characteristic of Dasein, not for the things that are not Dasein. We get involved with things, and it lets them refer and this referring brings them into the world. However, as mentioned before, the world is already there while we deal with things. It is the totality of all the references.

Now comparing similar environments in the physical and digital worlds we intuitively understand important differences that almost all of them come from the fact that there is no physicality in the digital world. In the physical world, physics is determining a huge part of how our world is and they play an important role in how things can refer to each other. Scientists are still trying to figure the rules out and we have still a long way to go. These rules affect the physical world at least in two ways: it creates limitations and it allows for predictability. For example, we know that when a ball hits the other ball the second one will move but it can't move faster than the first ball. All these facts we live by, are based on physical rules. We are aware of them, not theoretically most of the time but through circumspection. We deal with them; we get affected by them and so we are familiar with them. These rules are part of the form of our world.

In the Metaverse these rules and laws of interactions are not essentially the same in all possible environments. It depends on the creator of the environment to obey the rules or not. In a simulation of the physical world, like, for example, an imaginary city where people are supposed to have a life exactly like a physical one, the codes are written often in a way so that everything seems exactly like what we experience in the physical world, thus, these physical rules are the base of the predictability and limitations there. But in a sci-fi game where characters can jump ten times higher than their height and they can run faster than

bullets, there are other rules working. It depends on the creators, and that makes a very fundamental difference in the worldhood of the world. As a matter of fact, this is a very important factor of why the Metaverse is so attractive and interesting for people, especially for younger ones. Things can refer to each other in a completely different form from what we have experienced in our ordinary lives. It takes time to explore and understand these new references and to get familiar with them, and this process of familiarity step by step shapes the new world for the user. It is why teenagers may seem insane to some adults while they are immersed in one of these worlds. One can't understand a world until they are familiar with it, and familiarity happens after experiencing and dealing. For these reasons of having the chance to explore new laws of interaction in different worlds, sometimes some of these digital worlds seem to be even more real than the physical ones for some people, and they tend to spend more time there.

### 3.7. Conclusion

The fact that people describe the Metaverse by terms like visual reality, augmented reality, and digital world, stems from a pre-ontological knowledge that comes from the familiarity of Dasein with what happens in the Metaverse. It is based on the way the Metaverse shows itself to Dasein via his practical interaction with it, and so it is based on a fact and is not based on illusion. Heidegger's philosophy is capable of explaining this phenomenon because it considers the relationship between Dasein and its world via defining concepts like reality, truth, authenticity, and understanding

Things may be less or more real and authentic because the way they are is not something firm and unchangeable. Dasein has an existence which means, they exists and cares about their existence. Care, as we saw, is a crucial existential characteristic of Dasein. It makes Dasein able to get involved with the entities and lets them get free by making reference to the

totality of other things in the environment. Dasein lets the entities be by letting them refer. However, the way things are is not something that is shaped and controlled by Dasein. Dasein lets the entities be the way they are. Dasein usually doesn't make or change them. On the other hand, the way Dasein understands things in their Being depends on the significance which is the totality of references that makes things meaningful and in a sequence of for-the-sakes-of-which that finally ends up in serving a Dasein. This significance makes the worldhood of the world. The context in the background of the totality of the references makes the references meaningful and to the point. This is why the world in Heidegger changes Dasein and vice versa.

What happens in the Metaverse is very analogous. People in the Metaverse are supposed to have jobs, live in their homes, make money, conduct meetings, get educated, and have fun. Of course, the Metaverse is a parallel world with the physical world, that means, while people are active in the Metaverse, they still need the physical world: for food, shelter, and more. In that sense, there is a double asymmetry between the physical and the digital world: 1) The Metaverse, while it can compete in the everyday-life with the physical world, it still depends on the latter for sustaining the livelihood of the physical body running an avatar. Our Dasein in the Metaverse defies our physical limitations that our Dasein in the physical world have, but it still depends on it. 2) We understand the Metaverse and many of its differences from the physical world in many cases on the basis of our previous expose to the physical world. Experiencing the Metaverse you will be in different environments, dealing with different tools and people, and soon you will find out that there is meaning in things related there together, which you can understand, because you are familiar with meaning and references they make in the physical world, even though the references in the Metaverse might be vastly different.

However, I argued that the way things are in the Metaverse is ontologically different. Things are like each other and a person who knows what a chair is can easily recognize the chairs there. However, they lack the physical interrelation with the network of references that exist among the tangible entities in the real world. This crucial difference makes the entities in these two worlds to be different.

Dasein existentially is the same. We don't change existentially while using the Metaverse. We exist, we care, we involve, etc. however, an important aspect of our ordinary world is missing in the Metaverse. Physicality is not effective there. Things lack the physicality aspect and it makes them free from the limitations of the physical rules, which in turn makes it possible for them to refer to each other and make networks of references that are not the same as the physical ones. It makes a different world.

In sum, the Metaverse ontically is an expansion of technology. In Heidegger, it means that the Metaverse is not merely a tool to do something, but it's a way of revealing the world. On the other hand, the Metaverse ontologically makes a world and a kind of reality for us, but the world in the Metaverse as well as its reality are different from the physical world, and this difference is grounded in the fact that the Metaverse lacks physicality which makes things in it refer in a different way.

## Bibliography:

- Chalmers, D. J. (2022), Reality+, W.W. Norton & Company publications.
- Descartes, R. [1641] (2002), Meditation on First Philosophy, Internet Encyclopedia of Philosophy.
- Dreyfus, H. L (1995). Being-in-the-World, MIT Press.
- Dreyfus, H. L. (2002). Heidegger Reexamined, Routledge.
- Frede. D. (2007). The Question of Being: Heidegger's Project, Edited by: Charles B. Guignon, Cambridge University Press.
- Guignon, C. B. (1944). Heidegger and the Problem of Knowledge, Hackett Publishing Company.
- Hegel, G.W.F [1807] (1977). Phenomenology of Spirit, translated by A.V Miller, Oxford University Press.
- Heidegger, M. [1962] (1967). What is a thing, translated by W.B. Barton, Jr, and Vera Deutsch with an analysis by Eugene T. Gendlin, Gateway Editions.
- Heidegger, M. [1949] (1977). The Question Concerning Technology, Martin Heidegger: Basic Writings. Edited by David Farrell Krell. (New York: Harper & Row)
- Heidegger, M. [1975] (1982). The Basic Problems of Phenomenology, Translated by Albert Hofstadter, Indiana University Press.
- Heidegger, M. [1979] (1985). The History of the Concept of Time, translated by Theodore Kisiel, Indiana University Press.
- Heidegger, M. (1962). Being and Time, translated by John Macquarrie & Edward Robinson, Basil Blackwell
- Heidegger, M. [1927] (1962). Being and Time, State University of New York Press, Albany, Translated by Joan Stambaugh.

- Heidegger, M. [1929] (2000). *Introduction to Metaphysics*, translated by Gregory Fried and Richard Polt, Yale University Press.
- Hume, D. [1748] (2007). *An Enquiry Concerning Human Understanding*, Edited by Stephen Buckle, Cambridge University Press.
- Kant, I. [1781 - 1787] (1998). *Critique of Pure Reason*, Translated and Edited by Paul Guyer, Allen W. Wood, Cambridge University Press.
- Locke, J. [1690] (1912). *Locke's Essay Concerning Human Understanding*, selection and arrangement by Marry Whiton Calkins, Chicago.
- Wheeler, Michael (2020), "Martin Heidegger", *The Stanford Encyclopedia of Philosophy* (Fall 2020 Edition), Edward N. Zalta (ed.), URL = <https://plato.stanford.edu/archives/fall2020/entries/heidegger/>.