Informational Pragmatism

Towards a Philosophy of Digital Transformation

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Introduction

The title of this book is at once programmatic and demonstrative. It is programmatic because it names a program of action, a task. There is a goal: the changing world, which we characterize as digital transformation, should be philosophically approached. The title also describes how this will be done via informational pragmatism. There are many ways to approach a changing world. A company manager could be concerned with monitoring the competition and keeping a market advantage through innovation. A politician could be concerned about anticipating or attempting to create public opinion to win an election. A scientist could be worried about foundational research to develop new technologies. The media could be concerned with finding news that captures the public's attention. This book proposes to be a philosophical approach to a changing world. By choosing philosophy as the way to approach the world, there is implied a commitment to saying what philosophy is and how it is different from other possible approaches to the world. There is also a commitment to justifying why philosophy, among other approaches, should be chosen. Why be concerned with philosophy? Why is philosophy a way in which one should approach a changing world? What is the task of philosophy in today's world, if it has one at all? Concerning these questions, the idea of informational pragmatism comes into play. One important philosophical school of thought that has emerged in the gap between analytic philosophy and continental philosophy is pragmatism. Pragmatism locates the ground of meaning in social practices and meets hermeneutics, poststructuralist, and postmodern thinking halfway, as it were, between the logical and empiricist foundations of analytic philosophy and the social and historical foundations of much continental thought. This book aims to demonstrate that a new version of pragmatism, which we call "informational pragmatism," could serve as the basis for philosophizing in the 21st century. In this book, we propose a significant revision of pragmatism that could pave the way

for what philosophy should be about and how it can help us approach the world today.

When we speak of the "world" and "change" as guiding concepts, we are obliged to define these concepts. What do we mean by "world," and what does it mean for the world to "change"? What changes when the world changes? Does everything change, or only some aspects or domains of the world? Does technology change with innovation and new developments, whereas politics does not? Does science change with new methods and discoveries, whereas education has remained mostly unchanged for at least one hundred years? Do social practices change, whereas moral norms and values remain unchanged? What, then, is changing in a changing world? To speak of a changing "world" is to speak of the whole world, not just a part. If the term "world" refers to everything that exists, then the term "world" encompasses what traditionally has been the object of philosophical questioning par excellence - the question of existence, reality, or what could be called Being.[1] We assert that exploring the world as Being necessarily implies a philosophical endeavor. There is no knowledge that deals with Being, which is not philosophy. Although there are many kinds of philosophy, it is the philosophy of Being that truly deserves the name. Individual sciences deal with some domain of beings, whether matter, life, or society. If philosophy is not to be misunderstood as a particular kind of science, one discipline among others, then it is the whole world that must be philosophy's subject matter.

The title speaks not only of philosophy and the world but about the world as changing. It claims that the world, that is, Being, is changing. Much philosophical effort from the beginnings of philosophy in ancient Greece until today has been spent on understanding how Being can be reconciled with change or becoming. In our daily lives, we must deal with things that are constantly changing. Moreover, we ourselves are changing. It seems that change is everywhere and affects all things.

[1] When referring to existence as such and not to any particular beings, or to any transcendent being such as God, we will write Being with capital B.

However, the first philosophers in ancient Greece discovered that in mind, ideas, such as mathematical theorems, seem unchanging. 2 + 2 is 4 today as it was yesterday and will be tomorrow. Ideas of things, such as plants, animals, tools, etc., seem not to change. The chair I am sitting on changes. The concept of the chair does not. Furthermore, when I say that two different chairs are both chairs, I am saying the same thing about two different things. The idea of the chair is both unchanging and beyond any particular chair. This supposed fact led Plato to assume that a world of eternal and immaterial ideas existed in the mind beyond the world of material things that change and are known through sense experience. Before Plato, Parmenides argued that the idea of Being cannot change without becoming non-being, which is impossible. Since the idea of change implies that something that did not exist before comes into Being, how, Parmenides asked, can something come from nothing? Therefore, he concluded, change is an illusion. Although in different ways, the early philosophers all agreed that there is a fundamental difference between the world of changing things and unchanging first principles (*arché*), whatever these first principles might be. Being and becoming seem incompatible and even, as Parmenides claimed, contradictory. Whereas Being is conceived of as eternal and unchanging, becoming offers no solid ground for anything to exist beyond a short period. Individual beings, like tables and chairs, come and go, but Being itself cannot change. What could it change into, if not Being, which it already is?

The question of the relation between Being and becoming is repeated in the accompanying problem of the relation between knowledge of Being and knowledge of changing things in the world. From the beginning, philosophy has been concerned with what is real and how we can know what is real. The question of Being has always been deeply intertwined with the question of knowledge. Philosophy has two major concerns: Being and knowing. Granted, as the first philosophers claimed, it is possible to know Being and discover first principles, how is this knowledge of the truth possible? If particular things in the world, such as animals, plants, tools, tables, and chairs, come into Being and

disappear with time, knowledge of such changing things must differ from knowledge of Being itself. Although one says that a table "is," one does not usually stop to think about what the "is" means other than that it seems to carry the fact that one can speak about and use a table for specific purposes. It is indisputable that when we know things and talk about them, the most common way of saying anything is to say that something "is" in some way or another. The chair is next to the table. The dog is in the backyard. My money is in the bank. Physicists say that matter is nothing but particles and fields. There "is," as physicists say, dark matter even though no one has yet seen it. Religious people say that there is a God. Everything in the world, and the world itself, always "is" in some way. Whether in science or religion or any other human activity, knowing and speaking is all about things that, in some way or another, "are." Whenever we speak about anything, we use the idea of Being, but do we, for this reason, truly know Being? As we mentioned, knowing beings is not the same as knowing Being. Still, we must know Being in some way; otherwise, we could not use the word "is." But what is Being? It is a tautology to say that Being "is." To say that Being is Being is to say nothing. What, then, is the peculiar knowledge of Being, which we obviously in some way have but immediately put aside, forget, and disregard when dealing with everyday things? What does Being mean when it seems all we can say about it is tautological and, therefore, meaningless?[2]

Asking the question of Being implies that just as there is a distinction between Being and beings. There is a unique and corresponding distinction between knowledge of Being and knowledge of beings. The problem of understanding the difference between Being and beings is also the problem of understanding the difference between two kinds of knowing, the knowing of Being and the knowing of beings. These are two different but related problems. Just as the early Greek philosophers

[2] It was, above all, Heidegger who claimed that philosophy's task was to question Being and avoid confusing Being with Beings. Heidegger argued that much of the Western philosophical tradition had committed this mistake and was thus "forgetful" of Being.

searched for Being by distinguishing it from beings, they also searched for true knowledge in the place of mere opinion. They distinguished between two kinds of knowing: opinion (*doxa*) and true knowledge (*episteme*). It is generally accepted that philosophy began with these fundamental distinctions. However, philosophy did not appear out of nowhere. Philosophy arose within a world that had been described by myth for many thousands of years before. For tens of thousands of years before philosophy appeared in the 6th century BCE in Greece, mythology, that is, stories about the gods, was how people understood and knew the world. The nonhuman world was interpreted according to the model of human relations, family ties, power struggles, war, and intrigue. To get an impression of what myth is, here is a concise summary of early Greek mythology about how the world came to be:

> According to Hesiod, the world began with Chaos, a primordial void or nothingness. From Chaos, several deities emerged: Gaia (Earth), Tartarus (the Underworld), Eros (Desire), Erebus (Darkness), and Nyx (Night). Gaia then gave birth to Uranus (the Sky), who became her consort, and together they produced the Titans, the Cyclopes, and the Hecatoncheires (Hundred-Handed Ones). Uranus, however, despised the Cyclopes and Hecatoncheires and imprisoned them within Gaia. This angered Gaia, who plotted with her son Cronus, one of the Titans, to overthrow Uranus. Cronus castrated Uranus, and various other beings were born from Uranus' blood, including the Giants and the Erinyes (Furies). Cronus then became ruler and married his sister Rhea. However, fearing a prophecy that his own offspring would overthrow him, Cronus swallowed each of his children at birth. Unhappy with this, Rhea saved her youngest child, Zeus, by tricking Cronus into swallowing a stone wrapped in swaddling clothes instead. Zeus was raised in secret, and upon reaching adulthood, he forced Cronus to regurgitate his siblings: Hestia, Demeter, Hera, Hades, and Poseidon. Zeus and his siblings waged a war against Cronus and the Titans, known as the Titanomachy. With the help of the Cyclopes and the

> Hecatoncheires, whom Zeus freed from Tartarus, they defeated the Titans. Zeus became the ruler of the gods, establishing a new order with the Olympian gods, including himself, Poseidon, and Hades, who divided the realms of the sky, sea, and underworld among themselves. This made the world come into being out of chaos and conflict. The Titan Prometheus created humans from water and clay, and Athena breathed life into them. The gods intervene in human affairs arbitrarily.

In the Babylonian *Enuma Elish*, the creation of the world is described as follows:

> Initially, there is a primordial chaos, represented by the mingling waters of Apsu (freshwater) and Tiamat (saltwater). The first gods emerge from this chaos, including Lahmu, Lahamu, Anshar, and Kishar, representing various cosmic elements. These gods then created minor deities. These deities became dissatisfied with all the work they had to do, so they became noisy and disruptive. This prompted Apsu to plot their destruction. Apsu, however, is killed by Ea. Tiamat becomes enraged by the death of Apsu at the hands of the Ea (also known as Enki or Nudimmud). Ea's son, Marduk, is chosen to confront Tiamat. A violent struggle ensues between Marduk and Tiamat. Marduk defeats her and splits her body to create the heavens and the earth. He then organizes the cosmos, establishing order from chaos. Marduk assigns roles to the other gods and creates humanity from the blood of Qingu, Tiamat's consort, to serve the gods and relieve them of their labor. The sacrificial offerings of humans sustain the gods and, thus, the world order.

A common theme in these narratives is the struggle between order and chaos. Order arises out of a violent conflict with chaos, often as the victory of a hero god over some form of monstrous demon. The mythological conflict of order and chaos is a theme that will be carried over into philosophy in many different ways. Furthermore, the idea of heroic beings who are somehow responsible for order in the world is

echoed today, not only in religion but also in some current scientific and philosophical theories. Mythology pits the forces of order against the forces of chaos. The mythical idea of a heroic struggle for order against the forces of chaos remains alive in such contemporary theories as chaos theory in physics, self-organization in complex systems theory, entropy and negentropy in information theory, and radical constructivist and post-structuralist theories in philosophy.[3]

Despite continuities with the mythological understanding of the world, philosophy breaks with mythology and explicitly disavows telling stories about the gods. When Thales of Miletus, usually considered the first philosopher, declared that the world originates from a primal element, water, he breaks decisively with mythological thinking. The primal element is an *arché,* a first principle, and not a deity, nor is it personified in any way. It does not undertake any heroic struggle to create the world, nor is it involved in any family struggles, nor does it represent a primal chaos out of which order is wrested in struggle. Thales's notion of water as a primal element does not battle with or contrive against other personified elements or forces. What it does do is something entirely different. The idea that everything comes in some way from a material substrate is not a product of the narrative imagination, a mythical story, but the result of a special way of relating ideas to each other that, in later philosophical language, was called observation, generalization, and inference. Water can be seen to change into different forms, a solid state in ice or vapor in steam, and it is found in all living things. It is characteristic of philosophy as opposed to mythology that the world originates from a single element, a unifying form of being, and that the way in which philosophy knows this is by "reasoning."

Philosophy is distinguished from myth by the search for first principles based on observation and reasoning. This means that philosophy is very different from that knowledge of the world typical of most

[3] The idea of the "force" of reason, or the "force" of the better argument appears today in Brandom's neo-pragmatism and Habermas' notion of argumentative discourse.

people's beliefs and everyday concerns. The early philosophers understood themselves as seekers of true knowledge. True knowledge was opposed to the knowledge of ordinary people concerned with agriculture and animal husbandry, the expert knowledge of priests about rituals and sacrifices, or even the specialized knowledge of craftsmen and military and political leaders. The world that philosophy attempts to know is very different from the world described in myth and known through the various concerns of everyday life. Philosophy is concerned with first principles or *arché* and true knowledge or *episteme*. The *arché* are ways of talking about Being, the first principle from which all else arises and which is always distinct from beings. And the truth of talking about *arché* arises from reason, *episteme*. One could risk a short definition of philosophy as that practice concerned with *arché* by means of *episteme*. This definition can still be used today with sufficient clarification and qualification of concepts. One important clarification is that even when Being is conceived of as a particular element, for example, water for Thales, it is not just one thing among others. It is the foundation, the origin, and the ground of all particular things and has, therefore, a special status that distinguishes it from things in the world.

The nature of this special status is the subject matter of much philosophical debate throughout Western history. The difference between Being and beings was understood as the difference between a divine being beyond the world and worldly beings, or it was also understood as an absolute difference with no determination and is therefore unbounded or unlimited.[4] Heidegger is, above all, well known for introducing the question of what Being could mean if it is not thought of as a kind of super being, a god. Apart from the nature of Being, the second fundamental question of philosophy is the question of that special kind of knowing that knows Being as opposed to knowing things in the world. Knowing the first principles, the *arché*, is knowing the truth instead of having unfounded opinions, which

[4] See Heidegger's (*Der Spruch des Anaximander*) interpretation of the *apeiron* of Anaximander.

characterizes the knowledge typical of people who are not philosophers. In modern times, the sciences have come to occupy a place between knowledge of *archè* and what the Greeks saw as *doxa*. Scientific "truth," that is, verified or not yet falsified hypotheses, is not the truth of philosophy.

We will introduce a particular terminology in this book to clarify what philosophy is and what it is about. We will refer to that concern of philosophy with knowing, reasoning, speaking, and the entire realm of what could be called "ideas" as Meaning.[5] Further, as already apparent from the discussion above, we will call the first principles that philosophy attempts to know Being. Third, to express the fundamental assumption that Being and Meaning are not two different "things" but the same, we will refer to the unity of Being and Meaning as the World.[6] In our terminology, Being, Meaning, and World are one. We hope thus to respect the basic insights that lie at the origins of philosophy. At the early Greek origins of philosophy, there was no fundamental distinction between ideas and things, between the mind and the world. The *arché* were the principles ordering everything that exists, both the natural and the human. At the beginning of philosophy, there is only one World known by the Meaning of Being.

Our title suggests that the world we are concerned with is not primarily an immaterial, unchanging world of ideas as Plato supposed. The World we are concerned with is the changing world of our everyday lives. This is a world that is fundamentally characterized by time. Change, after all, is only thinkable in terms of time. Since Parmenides declared that the world of changing things, the world of becoming, is

[5] Like capitalizing Being, we capitalize Meaning to indicate that we are not speaking of semantic meaning, the reference of a word, the meaning of a word in the dictionary, or in a sentence, or in a language, or even the meaning of signs in a semiotic system, whether formal, informal, visual, auditory, tactile or whatever. Meaning, just as Being, is that which makes all these forms of meaning possible.

[6] Heidegger spoke of Being-in-the-world *(In-der-Welt-Sein*) to designate the inseparability of Being and Meaning. To distinguish our special usage of the term which follows Heidegger we will capitalize it.

an illusion, philosophy has had an ambiguous relation to time. For Parmenides, change implies that something comes into Being. This implies that there must be something before Being, out of which something arises. But outside of Being, there is nothing. There can be nothing before nor after Being. Being excludes time. The logical conclusion that Parmenides drew was that nothing could exist in time or be temporally conditioned. Since nothing can come from nothing, the world of becoming cannot be. This implies that all supposed knowledge of the changing world is an illusion. As Parmenides insisted, Being itself is, and cannot become anything. From its very beginnings, therefore, philosophy has been confronted with the question of the relation of Being (and Meaning) to time. Of course, time, becoming, and change also have their champions.

Among the ancient Greek philosophers, there was also a view that all things were changing and that nothing, not even Being itself, could escape the grasp of time. According to this view, which is usually attributed to Heraclitus, there is only becoming and no such thing as eternal, unchanging Being. Over two thousand years later, Nietzsche will speak of the "will to power" and the "eternal return of the same." For Nietzsche, these ideas are the *arché*. They refer to the dynamic and transformative forces he proclaims are the meaning of Being, the ground of everything, and the fundamental forces that shape the world. Since Being cannot change, everything must return. Nietzsche understands Being as the synthesis of Being and becoming, that is, as an eternal striving for power, a never-ending process of transformation, at once the same and always different. Another echo of the controversial question of Being and becoming can be heard in the title of Heidegger's famous book *Being and Time* (1928), which links Being to time and history. According to Heidegger, the history of Being (*Seinsgeschichte*) is the last word Western philosophy says about metaphysics.

We said that the title of this book is both programmatic and demonstrative in that it says or at least implies something about philosophy and also attempts to illustrate what philosophy does. If the

world is changing, so is philosophy, which is a part of the world. When one approaches the changing world philosophically, one also participates in changing the world and, therefore, in changing philosophy. In his critique of Hegel's optimism about the happy end of history, Marx claims that philosophy should not merely describe the world but change it. As the philosophical tradition of pragmatism argues, knowing is fundamentally a doing, and doing always brings change with it.[7] Philosophy cannot help but change the world. Philosophical approaches to a changing world are philosophical because they participate, as does everything else, in transforming the World. Of course, claiming to do philosophy is one thing, and doing it is another. There is much activity that changes practically nothing. Philosophy can also become such an activity. But if knowing is doing this has an important consequence. This consequence is the normative character of knowing. It can be said of all doing, of all activity of any kind, that it can be done well or less well. Doing, whether it changes the World or not, is governed not by determinate or mechanistic causality but by normative rules.[8] Wittgenstein, let us recall, claimed that language and, therefore, thinking are norm-governed activities. Language-games, as Wittgenstein pointed out, have rules. Normatively governed activity is subject to normative judgments; that is, it can fall short of its goal. It can be judged to be correct or incorrect, right or wrong, successful or unsuccessful. If it can be said of all doing that it does what it does well or badly, then it must also be said of philosophy that it participates in changing the world for the better or the worse. Not all change is good, just as not all doing is doing things correctly. If philosophy is an activity, it must be judged as all activities are judged, that is, in terms of doing something well or doing it less well.

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[7] For an introduction and overview of pragmatism, see Brandom (2011), Menand (2002), Murphy (1990), Misak, C. (2013), and Talisse/Aiken (2011).

[8] Brandom (2019) has recently pointed out that Kant distinguished between a realm of necessity and a realm of freedom, placing human activity, cognitive as well as practical, on the side of freedom. Hegel consequently included the realm of necessity into the normatively governed realm of freedom, implying thereby that Being and Meaning are normatively ordered.

Action, as opposed to causally determined reaction, is normatively conditioned. Normative judgments, that is, judging whether something was done well or not well, are made in the light of norms that are the criteria of what counts as doing something well or not well. What, then, are the norms or the criteria that allow us to judge whether we are doing philosophy in the right way or not? What makes philosophy good philosophy? We have assumed that philosophy somehow deals with Being, with everything. Recalling what was said above about philosophy necessarily participating in changing the World, we can understand philosophy as the endeavor to describe the norms guiding how the World is changing. If philosophy does this well, then we know what we ought to be doing or at least how we should do it well. It must be emphasized again that philosophy is not a particular science, among others, such as physics or biology, which describe the regularities, rules, or even" laws" governing how matter or living organisms change. As Aristotle said, the philosophy of Being is not any particular science but a science of science, a kind of meta-knowing, that is, a knowing of what knowing itself is. Since Being and knowing are inseparably connected, to know knowing is to know Being. This is the knowledge that came to be known as metaphysics in the wake of Aristotle. Philosophy is therefore concerned with those norms or rules guiding the construction of Meaning and thus also Being and World. Philosophy must not only be judged by these norms but also discover them and show that the norms it has found are normative for today's world. And, of course, it must show that it is itself following these norms.

Philosophically approaching a changing world, as all journeys, must begin somewhere and proceed in a certain way along a certain path. The Greek word *methodos* refers to the way one proceeds along a path. Philosophy, therefore, must follow a method. Since philosophy has a history, it would seem natural for us to begin there where the history of philosophy begins, that is, with the presocratics in ancient Greece. The changing World, however, was there long before the presocratics began to think about the world in that special way which was primarily concerned with distinguishing itself from myth and mere opinions and

which has come to be known as philosophy. Contrary to what is taken for granted in the history of thought, the ideas and the thinking that Anaximander, Heraclitus, and Parmenides, to name only a few of the ancient Greek thinkers, bequeath us are not the real "origins" of philosophy. The origins that philosophy attempts to describe are philosophical and not historical origins. They are not to be found in the history of philosophy but in philosophy itself. The philosophical idea of history implies that beginnings stay with us; they are not "lost" in the past, only to be discovered by a kind of archaeology and then displayed in chronological order in a museum of ideas. Returning to origins does not mean reciting what the first philosophers and their followers said, although what they said is important and should be taken account of. From the philosophical perspective, origins are not merely in the past. They stay with us, accompany us, and guide us. As everyone knows, where we come from is an important part of who we are. And who we are is something that we are always becoming. As Heidegger put it, "*Herkunft aber bleibt stets Zukunft*,"[9] which could be translated as "beginnings not only set us upon a journey but guide us into the future." It could be said that origins stand "before" us in both senses of the word; that is, they lie behind us in the past, are with us in the present, and are in front of us in the future. Does this mean that philosophy is going in circles? Is Nietzsche right when he proclaims the eternal return of the same? Or could it be that the Being of becoming consists in the fact that what returns in the course of history is not the same but something slightly different? Could the circle be a spiral such that the movement of "returning" is also a "turning into" something new and unexpected, an eternal return of the different, a transformation?

For Heidegger and the school of thought known as philosophical hermeneutics, this circular movement of thought is the movement of history itself, whether it be the history of ideas or the history of the World. And more importantly, it is how Being shows itself to us,

[9] In *Beiträge zur Philosophie* (2003).

namely, historically. Philosophy began by questioning Being and becoming, and even today, as the reference to Nietzsche shows, philosophy continues circling around these questions. But this circular motion is not perfect. There is no return to that which once was in exactly the same way; indeed, as Heraclitus famously proclaimed, nothing is ever exactly the same. Otherwise, there could be no idea of change or transformation at all. What occurs in the circular, or perhaps better said, the spiral movement of philosophy and history, is always surprising and new. This is so even when what comes out of this activity is and can never be completely new since, whatever it might be, it is always in some way related to everything that came before it. The pure and unchanging Being about which Parmenides spoke has no history. The One is not a relation. Time and history imply relation and difference. Where there is a difference, there is always a surprise, something unexpected, something new. From this perspective, it could be claimed that philosophy does nothing but construct surprising relations. Of course, this can be said of almost any human endeavor. A carpenter, for example, relates things such as hammers, nails, and wood in a workshop such that a piece of furniture with its own unique character comes out of it. Philosophy differs from carpentry or any other endeavor, not by relating things to each other but by relating things to the process of relating itself. What makes philosophy special is that the relations it attempts to construct do not relate particular things to each other, like hammers to nails to wood, but instead, philosophy relates everything to the process of relating and describes what this process is and how it does what it does and, as noted above, how it is normative for our philosophical efforts. It is apparent from this description of philosophy that philosophy ends up saying the same thing about everything.

Traditionally, the philosophy that deals with everything is a philosophy that deals with no one thing or group of things in particular; that is, it goes beyond things to what makes them things in the first place. Since Aristotle, this kind of philosophy has been called “metaphysics” or “first philosophy” since it deals with the fundamental nature of reality

as expressed in concepts such as being, existence, and the world. For classical Greek philosophy, these concepts are *arché*, that is, origins and thus first principles. No concept or idea refers to anything that comes before Being. What could it be? *Arché* or origins, therefore, are those ideas and concepts that philosophy is searching for. They are not the ideas and concepts that the carpenter is dealing with. And they are not the basic concepts of the particular sciences. Assuming that philosophical concepts can be applied to everything, it can be said that they are the most general and universal concepts, which does not, however, imply that they are mere abstractions. Metaphysics, therefore, attempts to say the same thing about everything. If it cannot be explained how and why a concept applies to everything, it is of no interest to metaphysics. Non-metaphysical concepts can serve very well as the foundational concepts of particular sciences and skills. Life, for example, is the foundational concept of biology. Society is the foundational concept of the social sciences. The individual psyche is the foundational concept of psychology. Matter is the foundational concept of physics and chemistry. None of these sciences claim to be saying the same thing about everything, and when they do, as is often the case, they have left science behind and entered into the realm of philosophy. This way of doing philosophy is called reductionism since the World is thereby reduced to a concept that cannot describe everything, to a concept that is not an *arché.*

Many different attempts are coming from particular sciences to reduce everything to various kinds of things. Usually, the attempts of science to become philosophy are called "…isms." There is physicalism, or the attempt to reduce the World to matter in motion. There is biologism, or the attempt to reduce everything to organic systems. There is psychologism, or the attempt to reduce everything to psychological processes. The two great "…isms" of the Western tradition since the ancient Greeks are materialism and idealism, or attempts, on the one hand, to claim that everything is merely matter and that consciousness, reason, or mind are epiphenomena of matter, whereas, on the other hand, idealism claims that everything can be reduced to some non-

material, ideal principle of reason or mind. The materialist tradition can be traced back to Democritus (5th C. BC), who claimed that the World was nothing but atoms of matter in motion. The idealist tradition goes back at least to Heraclitus (5th C. BC) with his doctrine of *logos* and Anaxagoras (5th C. BC), who spoke of *nous* as a fundamental principle of order in the world. These ideas were taken up by Plato, who spoke of a transcendent, eternal world of forms or ideas that were the archetypes according to which all things come into being. These traditions can be traced through Western philosophy until today in such ideas as physicalism based on natural science and idealism or panpsychism based on the primacy of mind. Heidegger pointed out that such reductionisms are a great temptation for philosophical thinking to lose track of its goal, and he reminded us that they must be carefully avoided. We will take this warning seriously in this book and attempt to circumvent any reductionism.

The guiding question of this book to approach today's changing world philosophically does not imply that we strictly follow the history of philosophy. This is an important task, and much can be learned from it. We are interested in history but not in the way historians are. Instead, our concern is to do philosophy. As philosophers, we are not primarily interested in talking about philosophy but in doing it. The goal is to approach a changing world philosophically. It should be emphasized, however, that the one approach does not exclude the other. Since origins are always with us by returning to them, we are constantly opening a future. When we philosophically review the history of philosophy, origins are always with us, and we are dealing with the world of today, a world that is changing and being transformed. What is this world? How should it be described? More correctly, how should it be described philosophically?

In Part 1, we begin by following the lead of technology, which seems more than any other achievement of history to characterize today's world. Our contemporary world and our lives are in every way influenced by technology. It is often said that we live in a technological

age.[10] The industrial age was already characterized by technology. Today, with the advent of the computer, sociologists speak of an "information society," and the idea of a "computational paradigm" is gaining acceptance.[11] We can safely assume that technology, in one form or another, characterizes everything that can be done in the 21st Century and certainly beyond. It would seem justified to claim that technology is the driving force of transformation in today's world. Recalling what was said above about historical origins always being with us, we may ask if it was not in some way always the case that technology characterized Being, Meaning, and the World. Was there ever a time, we ask, when human existence was not conditioned by technology? Is human existence in some way always technological, that is, bound up with those practices that involve changing the material world? Have we not always been dealing with things, with the earth, with animals and plants, with stones and wood? And were we not doing this long before we became concerned with gods and first principles?

Technology is nothing new. Archeologists and anthropologists have spoken of the making and using of tools as the decisive characteristic of human existence. The archaeological record shows that our ancestors used tools to change the world long before philosophers such as Plato or Aristotle focused their attention on language and ideas. For Aristotle, the distinguishing characteristic of human beings was reason or language and no longer tool-making. From the perspective of archeology, however, technology becomes a matter of philosophical concern. It is not merely something that human beings may occasionally concern themselves with when they are not sitting and thinking, as philosophers do. A sufficiently deep look into the past shows us that technology is not merely one activity among others. If technology uniquely characterizes human existence, and as we shall see, has done

[10] In The *Question Concerning Technology* Heidegger declared technology to the way in which Being discloses itself in our time.

[11] For the computational paradigm see the work of Stephen Wolfram https://www.wolframphysics.org/.

this since even before the appearance of Homo sapiens, what links this original technology with the technology we are talking about today?

In today's world, the technology which conditions everything could be called "digital technology." Is there an unbroken, if not direct, link between the first tool, the primitive stone ax, and the smartphone? Both are carried in the hand. Both serve many purposes. If the process of transformation that we experience everywhere today can be referred to as the "digital transformation," can this be understood as the same kind of transformation that began with the invention of the stone ax by our hominid ancestors some three million years ago? If so, understanding the digital transformation implies understanding the transformation that occurred when the first hominid created the first stone ax and culture came into being for the first time. We must admit that "digital transformation" cannot be considered a philosophical term in any current sense. The term usually designates how businesses and organizations adapt digital technologies for handling data, facilitating communication, and structuring processes. It can also refer to innovation and projects in information and communication technologies (ICT), specifically within the digital technology industry, and the development of hardware and software applications of all kinds for production, services, and administration. In this book, however, when we speak of digital transformation, we will give this term a specific philosophical meaning.

As philosophers, we are not concerned with any of the usual understandings of what digital transformation means. We are concerned with digital transformation, which is understood as the current form of technological transformation that began with the first stone tools and has made us into what we are today and will become in the future. Heidegger reminds us that the essence of technology is nothing technical. In recent philosophical discussions, technology has become a term that characterizes everything in some way or another. We could claim that technology has become metaphysical since there is nothing that is not in some way conditioned by technology. This is why

Heidegger spoke of technology as the way in which Being discloses (and disguises) itself in the modern age. Technology characterizes our present moment in the history of Being.[12] Our concern in Part 1 will be to attempt to understand technology philosophically and then to understand digital transformation as the form in which technology is shaping our World. The guiding question will be: What does a philosophical definition of technology and digital transformation look like? From which philosophical ideas and traditions is a philosophical concept of digital transformation derived? How is digital transformation to be understood from the point of view of the primary concern of philosophy, which, we recall, is to say the same thing about everything and, in doing so, to return to origins in such a way as to move into the future? The answers to these questions will focus on the emergence of Meaning in the construction of actor-networks. We propose to understand technology following Bruno Latour as "technical mediation" which we describe as the construction of actor-networks through the construction of information. Meaning, Being, and World emerge as technically mediated information. Since technical mediation is inherently what could be called "social practice," the question of philosophy becomes a question of society. This leads to a description of what kind of society we live in today.

In Part 2, our guiding question will be: What is the world today? How has it changed from the past society, that is, from that society, which is usually referred to as the modern period? Can we justifiably continue to speak of Western industrial society or "modern society?" And if we no longer live in modern society, what society do we live in? We will attempt to answer these questions with reference to what could be called the emergence of a "global network society." We will ask: What is modern industrial society, and how does the present-day global network society differ from it? If the global network society is a product of the digital transformation, what is society, which is to be understood

[12] Although we think that Heidegger is right about the significance of technology, we do not agree with his functionalist description of what technology is. We will not describe technology as "*Gestell*."

philosophically as Being, Meaning, and World, transformed into? What are the driving forces behind this transformation, and what direction does it seem to be taking? What trends could indicate the direction in which the World is changing? These are the questions we will address in Part 2.

It could be objected that such questions are not philosophical but, at best, historical or sociological. If we follow the lead of such questions, we seem to have left the path of philosophy and moved to particular sciences. This objection must be taken seriously and demands that we show how sociology has been transformed such that it no longer confines itself to the investigation of a particular object, that is, society, as opposed, for example, to nature or the individual psyche. We will look at the new theories of society offered by Niklas Luhmann's theory of social systems, Manuel Castells' theory of the global network society, and Bruno Latour's actor-network theory to show that the concept of "society" has become a philosophical concept that includes everything and excludes nothing. To speak of society is to speak of World. What is not part of society? What could lie somehow outside of society? The idea of humans existing as isolated individuals somehow in a state of nature before the social contract is pure myth. Moreover, the idea of nature itself, at least since the advent of ecology, has become not only a philosophical concept, which it always was but now also a social and political concept. At the beginning of the 21st Century, that is, after Kant and Hegel, the rise of sociology and systems theory, philosophical hermeneutics, phenomenology, Heidegger, Wittgenstein, post-structuralism, and pragmatism, it is undeniable that philosophy has become inextricably entangled with society. Above all, neo-pragmatism, which we will deal with at length in Part 4 of this book, has emphasized that meaning arises in social practices, not in the immediate intuition of ideas or through sense perception.[13]

[13] Contemporary pragmatism, or neo-pragmatism is associated with the names of R. Rorty and R. Brandom. For an overview see Brandom (2011).

When the pragmatist tradition grounds meaning in social practices, has it not blurred the distinction between philosophy and sociology? In an almost complete reversal of classical philosophical approaches, the quest for the origins of Being and Meaning leads to an investigation of social practices and everyday life. Where philosophers throughout Western history disdained this world and have sought first principles in primal elements, *logos*, *nous*, and God, the pragmatist tradition looks to what was previously scorned as the realm of the ignorant, or mere opinion, *doxa*. The philosophical question in pragmatism becomes: What social practices construct meaning? How do they do this? Can such practices hold the same position in philosophical thought that the classical first principles, the *arché*, did for the ancient Greeks and their followers until today? We are indebted to pragmatism in this book in many ways, but with important reservations about which we will speak later in Part 4. We will claim that the proper philosophical approach to today's changing world is indeed through an understanding of society. However, what kind of social theory describes the global network society in such a way that this description is indistinguishable from philosophy? Furthermore, what kind of philosophy finds the *arché,* the first principles of Being, Meaning, and World, in the social, in the humble practices of everyday life? The answer we propose is that the world, which is the only world we know, is always already "social" because it and everything in it is constructed by relations. Relations, Part 1 argued, are information. The world of relations always already has meaning.[14] Actor-networks are always at once natural and social. This implies that constructing Meaning, Being, and World in social practices is inherently a *normative* activity. As Wittgenstein showed, meaning is use, and use of language is a rule governed activity. The question of norms guiding social practices becomes not only a philosophical but also a metaphysical question.

[14] We should not forget that the moment one particular stone became an ax, all the other stones became "not-axes" or "potential-axes."

Part 3 attempts to describe how philosophically approaching today's changing world could be done rightly, that is, how philosophy should be done to participate rightly in the digital transformation that characterizes our world today. The answer to this question involves attempting to show what the norms of the global network society are and how these norms guide everything done in this society in one way or another. Normativity is central to pragmatism because the social practices from which Meaning, Being, and World arise are essentially norm-governed activities. Kant transformed Descartes' ontological dualism between subject and object into a distinction between a realm of necessity and a realm of freedom. Kant decisively located meaning in the realm of freedom that is normative by nature. For Kant, not only practical activities are subject to normative regulation but also cognition and knowing. Meaning arises within a realm of freedom in which human subjects know and deal not only with each other but also with objects. Freedom, however, and this is Kant's most important contribution to modern thought, is not only normatively governed but requires that the norms regulating free subjects, if these subjects are truly free, must be instituted by these subjects and not imposed by some nonhuman instance such as God or nature. With this move, Kant established and bequeathed to modernity the autonomous rational subject as the definition of human existence. The autonomous rational subject became the hero of the Enlightenment and Humanism as well as the foundation for democratic politics and all struggles for emancipation characteristic of the modern Western world. Hegel made Kant's transcendental subjectivity into the concrete historical community and brought the natural realm of necessity into the realm of freedom by claiming that it is not only practical norms that must be instituted by free subjects but also natural beings. The autonomous rational subject became "Spirit" (*Geist*) that knows itself in knowing the world. The idea of "absolute knowledge" rests on the assumption that Meaning, Being, and World are instituted by the norm-governed social practices of free subjects who are integrated into a community. The community of mutually recognizing free individuals then becomes a kind of super subject which Hegel called Spirit (*Geist*). Spirit, for Hegel,

was both subject and object. The world that Spirit knows, both the social world of institutions and the natural world of things, is constructed by itself and thus expresses its autonomy and freedom. For Hegel, the norms that Spirit followed in constructing Being, Meaning, and World were the norms of dialectical logic. History itself showed that absolute knowledge was fantasy.

Contemporary pragmatism retains the central importance of norm-governed social practices for instituting meaning but without Hegel's absolute knowledge. After Hegel, the super subject/object of *Geist* disintegrated into various historical communities of practice, each talking about its own world. What becomes of the so-called objective world of facts about which these communities speak? As long as society consists of human individuals integrated into communities whose discursive practices are understood as talking about a world of objects, the old distinction between subject and object remains the foundation of philosophical thought, and we remain within the boundaries of modernity as well as Humanism and the Enlightenment and their commitment to the autonomous rational subject. Within this modern constitution, as Latour calls it, pragmatism struggles to find an answer to the question of how to put the subject and object together again after modernity has so decisively separated them.

How must the social and what are called social practices be conceived when the autonomous rational subject is no longer the foundational assumption guiding philosophical thought? What kind of normativity could guide social practices when this is not a normativity that autonomous rational subjects both institute and submit to? To answer this question, we offer a description of the norms derived from the affordances of digital technologies. These are connectivity, flow, communication, participation, authenticity, and flexibility. These norms guide the information-constructing activities of both humans and nonhumans in the digital age. Central to this argument is the idea that social practices are not exclusively human. Instead, both humans and nonhumans (technology) participate in and construct what could

be called "society." We argue that actor-network theory puts the pragma, the things, perhaps for the first time, back into pragmatism, where they belong. Philosophy need no longer be guided by the typically modern question of how meaning-making can somehow refer to or represent things since the things themselves also construct meaning.

Part 4 is concerned with proposing a new and revised version of pragmatism, which is called *informational pragmatism*. Informational pragmatism claims that the social practices neo-pragmatism understands as the source of Meaning, Being, and World are not to be conceived as the discursive activities of autonomous rational subjects but as the construction of actor-networks in which humans and nonhumans symmetrically participate. Informational pragmatism goes beyond the modern framework of the distinction between subject and object and the foundational assumption of modernity of the autonomous rational subject. The inferential pragmatism of Robert Brandom is confronted with Bruno Latour's version of pragmatism based on actor-network theory. Whereas Brandom grounds meaning in a particular form of language use, the game of giving and asking for reasons, Latour demonstrates how things can become social partners by reviewing Pasteur's research into lactic fermentation. Science in action is not a merely human discursive practice, a game of giving and asking for reasons, but a technical mediation that allows nonhumans to participate in the construction of information. From the point of view of such an informational pragmatism, the network norms described in Part 3 can be understood to apply to humans and nonhumans equally. Being, Meaning, and World are to be conceived of as information that arises in the practices of technical mediation that constructs actor-networks. The goal is a proposal for a fundamental revision of pragmatism such that the insights of pragmatism can be taken over into a post-modern and post-humanist world.

Part 1
The Question of Technology

Philosophy is concerned with the World.[1] It is, therefore, a legitimate philosophical question to ask where the World comes from. This is not a cosmological question or a question that can be answered within the domain of the physical or astronomical sciences. For a philosophical inquiry, references to the Big Bang will not suffice. The Big Bang is a scientific hypothesis that, in principle, could be empirically tested. For this reason, it is not a philosophical theory. There is no metaphysics or ontology of the Big Bang. In addition to this scientific theory about the origin of the World, there are various so-called "theories of everything" proposed by theoretical physicists that cannot be empirically tested, such as string theory, the multiverse theory, or quantum gravity. When scientists depart from what can be experimentally tested and propose universal theories, they venture into philosophy.[2] As a philosophical question, the question of the World is the question of Being and Meaning. The beginnings of the World that concern philosophy are not the same as the beginnings of the known universe, or of our solar system, or even the planet Earth. Whatever present-day or future science will discover about the universe, the solar system, and Earth, these are things that have meaning within a particular historical situation of knowledge and scientific practice. They "exist" within the history of Being and Meaning. The meaning they have within history is not the meaning of history itself. How can any science explain itself? Although quantum physics admits observer dependence, it cannot explain the observer.[3] Although biology admits cognition, it cannot explain Meaning. If science were able to explain itself, it would be that

[1] The reader is reminded that World (capitalized) refers to all beings and their unity in Being and Meaning.
[2] For a critique of theoretical physics along these lines, see Hossenfelder (2018).
[3] For a contemporary discussion of observer dependence in quantum physics, see d'Espagnat (2006).

which could be called a "universal theory." A universal theory must be able to explain not only everything in the world but also itself if it is to maintain its claim to universality. No science has so far managed to do this. The observer, as is well known, is not what is observed or explained by physics or even biology. Which of the fundamental particles or fields in the standard model is the observer? What brain activity or which neurons constitute the observer? The conclusion we wish to draw from these remarks is that the question of the World is a philosophical question. What can philosophy tell us about where the World comes from?

To answer the philosophical question of the World, we must go back to the beginning of the World. Since the World is the same as Being and Meaning, this implies that we must go back to the origins of Being and Meaning. We must attempt, therefore, to understand the events, the actors, the forces, and the processes that led to the emergence of Meaning. Of course, time travel is not yet possible, so we must rely upon imagination and attempt to tell a plausible story that describes the beginnings of the World and the origin of Meaning. We know that philosophy is not mythology. Contrary to the polemics against the poets of the ancient Greek philosophers, philosophy is no stranger to storytelling. Despite his contempt for the poets and their stories about the gods, Plato used his own myths and told his own stories to illustrate philosophical truths. He referred to these as "noble lies." Following Plato's example, we will attempt to describe the emergence of the World, that is, Being and Meaning, by using a fictional time machine to go back to that moment in history when it could be said that World, Meaning, and Being appeared for the first time.

The Difference a Stone Makes

Let us suppose there was a moment in time when a certain hominin ancestor of Homo sapiens participated in a momentous event, an event so momentous and unprecedented that it not only changed the world but brought the World into being. Let us go far back in history, even