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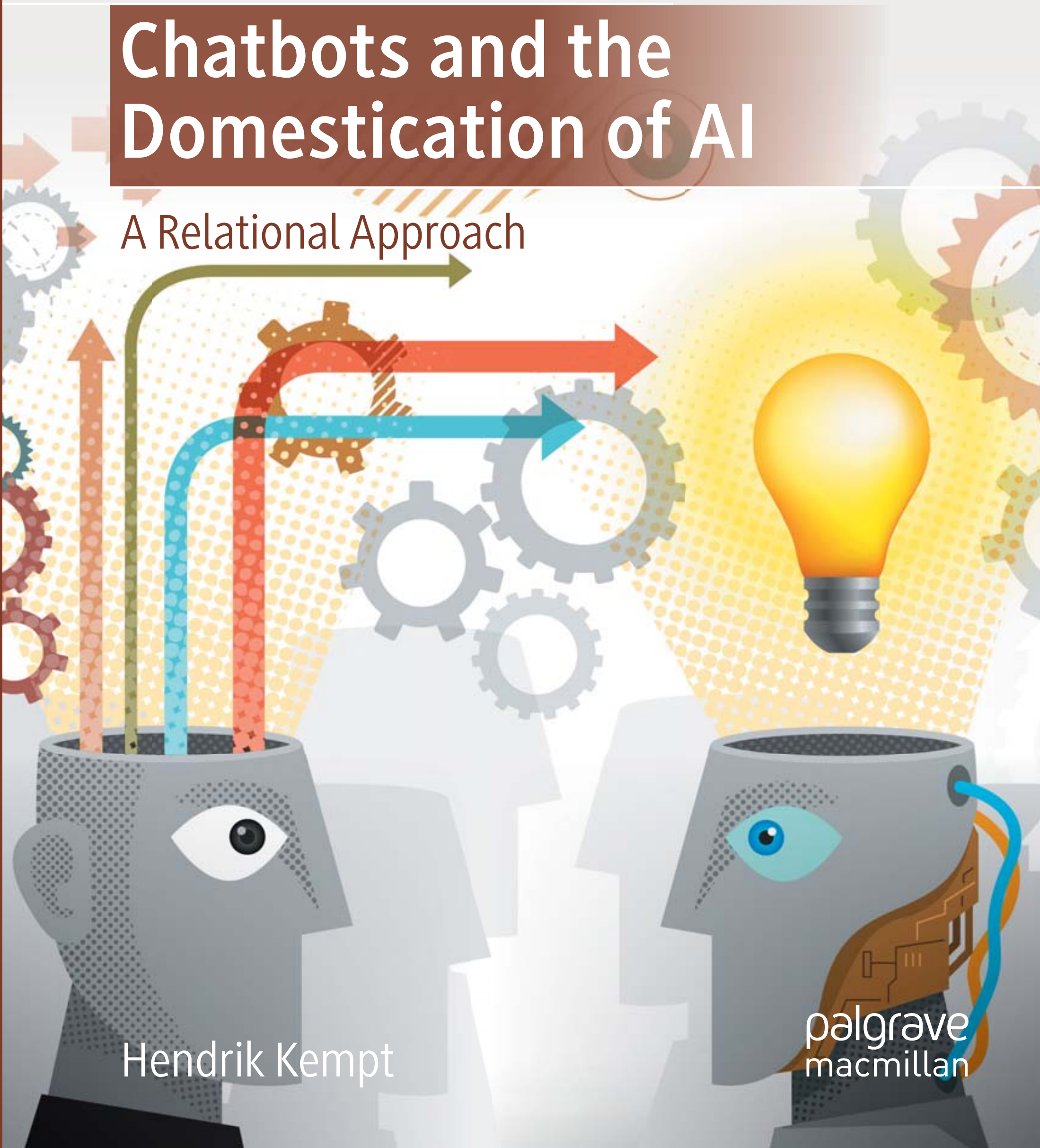

Chatbots and the Domestication of AI

A Relational Approach

Hendrik Kempt

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“πάντων χρημάτων μέτρον’ ἄνθρωπον εἶναι,
‘τῶν μὲν ὄντων ὥς ἔστι, τῶν δὲ μὴ ὄντων ὥς οὐκ ἔστιν”—*Protagoras.*

*“The human is the ultimate measure of all things, of the existence of things
that exist, as well as the non-existence of things that do not
exist.”—Protagoras*

Acknowledgments

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and news, I would have missed out on many philosophically relevant information.

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Lastly, I want to thank my husband John, my family, and my friends, who all remained supportive even when I had nothing else to talk about but chatbots.

Praise for *Chatbots and the Domestication of AI*

"A significant contribution to thinking about human-machine relationships. Instead of seeing chatbots as decontextualized things, Kempt explores how chatbots intervene in human social discourse and its epistemology, and contributes to the further development of a relational approach in contemporary debates about the moral standing of machines."

—Mark Coeckelbergh, *Professor of Media and Technology, University of Vienna, Austria, and author of* Introduction to Philosophy of Technology *(2019) and* AI Ethics *(2019)*

"Anthropomorphism has been something of a 'dirty word' in the fields of AI and robotics. In this book, Hendrik Kempt critically reactualizes the concept, demonstrating how these anthropomorphic tendencies—tendencies that are seemingly irrepressible in the face of chatbots, digital assistants, and other things that talk—are not a bug to be eliminated but a social feature to be carefully cultivated and managed. Thinking beyond essentialist explanations and theories, Kempt develops a relational approach to the social that is responsive to and can be responsible for the opportunities and challenges of the 21st century."

—David Gunkel, *Professor of Media Studies, Northern Illinois University, USA, and author of* The Machine Question: Critical Perspectives on AI, Robots and Ethics *(2012)*

"Hendrik Kempt's thought-provoking book is an impressive rational examination of the place and social role that modern human society is creating and establishing for artificial conversational agents, and how our social relationships with such agents could potentially evolve in the future. As a scientist who has spent his career developing AI-based human language technology, I was fascinated by this guided philosophical tour of the potential sociological consequences of our scientific body of work. It's a highly recommended and intellectually satisfying read."

—Alon Lavie, *Research Professor, Language Technologies Institute, Carnegie Mellon University, USA, and former President of the International Association for Machine Translation (2013–2015)*

Contents

CHAPTER 1

Introduction

1.1 Introduction

When considering prognoses given about the potential of certain technologies and technological trends, we most often remember the outrageous misjudgments rather than the precise assessments and are most likely witnessing similar false predictions these days—unbeknownst of their falsity. From IBM's president Thomas Watson stating that the world will not need more than five computers in 1943 to promises about the various announcements of the immediate advent of self-driving cars on our streets within a few years, the list of wrong predictions is long.

Considering the complexity of reasons for certain technologies to become ubiquitous elements of many people's everyday life, one would be inclined to refrain from those prognoses altogether. Yet, those prognoses themselves may function as self-fulfilling prophecies, by inspiring the public to think of a technology a certain way, thereby opening or closing minds and markets for certain devices.

Additionally to these self-fulfilling prophecies, unexpected breakthroughs in technological development, applicability, and compatibility, societal trends and ethical restrictions, economic (in-)stability and investments, politically forced acceleration or deceleration, successful marketing campaigns, or simply luck all take their fair share in the rise and fall of technological standards, applications, and devices.

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For some individuals, new technologies represent hopeful progress toward a better future. For others, the very same technologies are viewed as threats to the way of life they are accustomed to and intend to keep unchanged. No matter whether one views technological changes as net positives or negatives, the common denominator seems to be that technology facilitates change.

However, not all types of change are facilitated by technology. Technological progress most often results in *social* change. It changes the way we relate to our environment, to each other, and often to ourselves. New communication devices allow for constant interactions with people thousands of miles away, while augmented reality will add another layer of interaction and information to our immediate surroundings. Technologically assisted medical progress allows for curing diseases that just decades ago were death sentences, while the latest autonomous battle drone can strike without being noticed by its target. Some social movements, like the Arab Spring, would not have been possible without ubiquitous access to social media. However, this access also allows oppressive regimes an even more oppressive grip on its population, as exemplified in the Chinese social scores. Technological progress may result in social change, but it does not guarantee social progress.

New technologies come with risks associated with their use, both individual and collective risks. In open societies, discourses about the acceptability of those risks ideally determine the overall acceptance of such technology. Artificial intelligence has so far been an elusive technology when it comes to its thorough risk-assessment and social response. Partly due to a certain AI illiteracy of the general public, leading to broken discourses about what AI can do, and partly due to the speed of its development, especially of the last decade, a coherent risk-assessment has been missing. This speed, often likened to a technological revolution, has also opened many philosophical questions that are just now slowly being asked and subsequently answered. Some of those questions will be asked here, and hopefully some answers will be provided.

1.1.1 Smart Fridges and Other Reifications

For a philosophical inquiry into issues of AI, one main obstacle appears right at the beginning: how can and should we understand the otherwise opaque concept of artificial intelligence? Due to the vast range of methods and applications that all are claimed to incorporate and exhibit some form of intelligent behavior, an all-encompassing definition will lose any practical purpose to limit any inquiry.

Take as an example: a "smart fridge." Its intelligence-claim is based on the ability to scan items in one's fridge and preorder those that, according to typical use based on someone's consumption profile, will be used up soon, or warn about expired articles in the fridge. Calling the fridge smart, then, is a reification of AI, as it is not the fridge as a whole, but the added software and its connection to the cloud that is providing the smart function.

We are used to identifying intelligent beings as embodied entities occurring in nature, and this phenomenological basis is often the cause for misattributions and confusion about the source of (artificial) intelligence. This observation suggests that we require a fundamentally different approach to artificial intelligence than to natural intelligence: AI may come disembodied or might be re-embodied, duplicated, changed, and adjusted to the tasks at hand. It never is just one intelligent artifact, but an algorithm capable of operating on other hardware. To some degree, this argument also applies to approaches in philosophy of AI that concentrate on robots as embodied forms of artificially intelligent agents. Researchers have long argued that embodiment is a prerequisite for many cognitive capacities (Duffy and Joue 2000; Stoytchev 2009). However, this does not mean that robots are to be considered the intelligent entity, but that they operate with an intelligent algorithm. We should recommend, then, that philosophers carefully define the object and scope of their inquiries to avoid reification.

In this book, this object will be artificial speakers and their social impact. Artificial speakers are understood as computer programs capable of analyzing and reproducing natural language, that is the language human beings use to communicate with each other. Most of those speakers are not embodied, i.e., they do not appear with a physical presence, even though their application is certainly not limited to chatrooms or being personal assistants in mobile phones and at home.

The reason for seeking out artificial speakers from all current uses of certain types of AI is the capacity to speak with humans in their own language. This simple fact differentiates this technology from every other AI so far. No other technology produced by humankind so far has managed to enter stable, interactive communication based on people's own language.

Engineers working in the area of natural-language processing (NLP), tasked with improving the skills of those artificial speakers, have no other way of proceeding than to imitate human language use, which ultimately results in deceptive copies of speaking robots that not only use human language but imitate human speakers. The better engineers follow this task, the more dubious their product becomes. With the incoming products of those engineering efforts, many of the topics discussed here are also being discussed under the term "human–machine communication" (HMC) or in media studies. In fact, many of the approaches of the social sciences take the development of humanoid robots as a starting point for their research (for example, Zhao 2006).

Take Google's Duplex, advertised as a virtual assistant capable of seamlessly infiltrating human conversational practices by simulating human-specific features, like thinking noises and interjections (Leviathan and Matias 2018). Investigating the impact of such a humanoid robot on the social relationships between humans and other humans, but also between humans and those machines has become a central point for HMC (Guzman 2018, 16).

Yet, many of those analyses are approaching these artificial speakers and social robots from a media- or communication-science background. Reflecting upon those processes from a philosophical perspective, then, is needed to both provide tools to describe and to assess these social robots and their relationships with us. A philosophical approach to the way we interact and communicate with, rely on, and relate to these speaking machines allows for a normative approach not only to the way those machines are constructed, but also to our attitude toward the possibilities of building human–machine relationships.

Many children treat their plastic pets with the same care and empathy they would treat a living one. It seems that there are ways of relating to machines in ways unknown, unfamiliar, and possibly uncomfortable to us due to preconceived notions not only of what technology can do, but also of what relationships should entail. A bigger picture is needed to answer the questions of future human–machine relationships. It is important to keep in mind that artificial speakers are designed entities and thereby can take forms that we, as the designing community, ideally consent on democratically.

The core diagnosis of this book is that we do not have this bigger picture available yet, and constructing one is the task of philosophers of technology in the twenty-first century. This coming century will undoubtedly bring new ways of human beings relating to their technological surroundings, and one of these ways is to build social relationships with them. One element of this bigger picture, then, is the idea that our social categories with which we describe elements of the social fabric are woefully lacking differentiation. This lack of differentiation is the reason why some people rejected artificial speakers as any possibly relatable technology, similar to people who rejected the idea of relating to toy pets.

The limitations of social categories are driving the engineering goals to create more humanoid robots, fueling the fears of people resulting from this successful engineering, and limiting the imagination of human–machine relationships that are beneficial for everyone involved. This is accompanied by questionable presuppositions of what typical human features are, how they ought to be reproduced, and how those reproduced features form our image of exhibiting those features in real life.

The proposal for the bigger picture needed here, then, consists in offering alternatives to anthropomorphism and avoids several different problematic developments, justifying the program of this book.

1.1.2 What's to Come?

For this program to work, some preliminary clarifications ought to be made. First, some methodological points are in order. These are presumably not necessary for the philosophically educated reader, but possibly quite useful for readers from other disciplines and backgrounds. The difference between an analysis and a reconstruction, for example, will carry some of the weight of this project, and it would be helpful for readers to follow this point. Second, we require a better idea of how artificial speakers work, what the main objective in creating them currently is, and why the assumption is justified that they will only increase in conversational sophistication. This chapter, in turn, may be of more interest to those of a less technical background. By pointing out that the current standard of programming AI is machine learning, the high hopes or concerns of soon arriving at a general artificial intelligence can be recalibrated. Most of artificial intelligence today consists in the convincing simulation of behavior and actions. However, as with any philosophy of technology, some speculation and extrapolation are required. Third, a relational approach is developed to lay the groundwork of understanding social human–human relationships. This relational approach includes human–pet relationships as a precedent for incorporating non-human agents into the social fabric by assigning them a unique social category. It also includes purely online-based human–human relationships as evidence that physical proximity is no longer a requirement for meaningful relationships. Fourth, the transfer of this relational approach to human–machine relationships is presented. This transfer should be considered the core chapter as it presents the arguments to incorporate artificial speakers into the social fabric by establishing a new social category, akin to a second domestication. Finally, the fifth chapter faces the consequences of such a move, by acknowledging that this position requires a stance on the debate on robot rights, human-based design, and the human–human consequences of emerging human–machine relationships.

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CHAPTER 2

Methods

2.1 Method and Orientation

Some introductory remarks about the philosophy of technology are required to permit a philosophical analysis of the phenomenon of artificial speakers. This chapter is intended to serve this purpose, even though the richness and variety of philosophical methods in approaching technology already doom the prospect of presenting an uncontroversial view. However, in acknowledging the futility of trying to write an adequate methods-chapter on the philosophy of technology, we can play the game a bit: In discussing the concepts we require for this overall project, and how we derive them, we can avoid long fought out debates.

In consequence, this chapter does not touch upon some of the more interesting theories and debates, like the approaches of post-phenomenology or critical theory, even though their perspectives help approach technology philosophically. Instead, we approach the philosophy of technology and technology itself from the perspective of our linguistic conventions and how describing and distinguishing technological phenomena influences the way we think and assess those phenomena.

The concept of technology is too fundamental to provide a definition that is workable for any specific philosophical endeavor, requiring this project to limit itself somewhat in scope. Similar that a definition of "nature" will not contribute anything to a treatise on mammals, a definition of "technology" will not contribute a lot to the social issues of

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artificial speakers. Luckily enough, the subject of this endeavor, the philosophy of artificial intelligence, is an active and established field within the philosophy of technology, with some hard cores and soft edges. In this field, one way to divide up the philosophical approaches to AI in two main areas: the one discusses the prerequisites of AI by discussing philosophical concepts within the context of AI, and the other discusses the practical consequences of applied AI. These areas are not discretely distinct, as some theories in the former influence judgments in the latter.

The concepts of "intelligence" or "agency," the problem of artificial minds and mental states, the question when machines deserve the attribution of "agency" are all prerequisite philosophical discussions that shape the way artificial intelligence is perceived. The relationship between technological advancements and those concepts are often interdependent, as technological progress can influence our conceptions of agency or artificial minds. However, as those are conceptual questions, they could be answered from the armchair. It is not even so much a "decision" when we consider consciousness to be achieved or when agency ought to be attributed to a machine, even though those are inherently normative questions as well; ideally, the stronger argument and a more coherent organization of the invested conceptual inventory prevails.

The other focus lies on the consequences of AI. These consequences usually pose ethical questions of how humans want to create their society in the age of unprecedented computing power and autonomous agents. From the question of sophisticated robots disrupting labor markets, over mass surveillance courtesy of self-learning and data-gathering algorithms to controversies of relating to robots in emotionally significant ways, the revolution of AI will affect every person one way or another.

Both parts are sometimes disregarded as rehashing older philosophical debates within the context of an emerging technology that is less revolutionary or problematic than presented in such debates (Nyholm and Smids 2016; Beard 2019). And while some applications of AI are certainly not revolutionary or deserving of a subsection of philosophy of technology (since there is no "philosophy of airplanes" either), the potential to affect most people's lives in previously unseens ways is certainly a reason to consider some of them separately.

To fully appreciate this potentiality, interdisciplinary discussions from a big variety of disciplines, from philosophers, engineers, sociologists, to cognitive scientists, business leaders, and lawmakers are required. For such debates to take off, a shared understanding of everyone's methods and terminology is welcome, even though philosophers do not have the best track record of providing sensible insight into their terminological customs. By introducing a straight-forward philosophical perspective in the following chapter, we can hope to provide a ladder for those less familiar with philosophical methods.

2.2 Concepts and Conceptual Analysis

The main methodological purpose of this project is to reconstruct the meaning, scope, and content of concepts regarding the social implications of certain AI-driven technologies. There is an important distinction between an analysis and a reconstruction, and this distinction will carry this book's approach. Conceptual analysis, as used in contemporary analytic philosophy, outlines the meaning, scope, and contents of concepts through differentiation and contextualization (Margolis and Laurence 2019). The primary purpose of an analysis is to sharpen the language used to describe the world to avoid certain philosophical problems that are based on an incoherent use of certain terminology. The assumption about certain rationality within the use of concepts itself is a sign that analysis is inherently normative (Wedgewood 2007).

However, conceptual analysis is usually thought of as non-normative, as it limits itself to analyzing concepts with reference to our intuitions and uses of said concept (as analysis means “to dissect” or “to break into pieces”). Following this premise, conceptual analysis provides some definitions of concepts in accordance with our intuitions.

However, the purpose of philosophical analysis is usually to provide tested terminology that captures the use and content of concepts adequately. Thereby, analysis always provides a certain normativity about the adequate use of concepts. To acknowledge this normative dimension, we may speak of “reconstruction” rather than analysis. A reconstruction can count as an analytic effort because, in it, we attempt to find reliable central meanings through distinctions, comparisons, contextualization, and decontextualization. However, a reconstruction also allows for constructive suggestions on what a term's use should be. Not only is such a reconstruction bound to certain requirements of coherence, but it also may incorporate changes within the use of the term. In the tradition of certain constructivist approaches of philosophy, like methodical constructivism (Janich 1997), those uses and changes of use are taken from the lifeworld (Lebenswelt) in which our everyday life is unfolding.

The reference to often pre-theoretical uses with certain concepts allows for a reconstruction of terminology that is close to "normal language philosophy."

In reconstructing concepts within the philosophy of technology, then, we should be encouraged to not only take the emerging conventions of certain terms as used by engineers to pump intuitions (see Dennet [2014] for an elaboration on the concept of "intuition pumps"). It is an open philosophical question of how much intuitions should count in defining and forming terminology and one of the main criticisms against current analytic philosophy. On the one hand, intuitions provide a helpful initial idea about the scope of a term. On the other hand, certain uses of terminology create intuitions about the correct uses, i.e., using concepts a certain way creates intuitions about their use. Additionally, many intuitions were formed and furthered in special social contexts that require contextualization, and it remains unclear how some of our most common intuitions are depending on certain problematic contexts. Thereby, philosophical reconstruction should not shy away from making suggestions about specific uses of terminology whenever adequate.

2.3 Description and Evaluation of Technologies

To paint with a very broad brush, one could summarize the methodological approach of the analytical ethics of technology by first "describing" the technology and then by evaluating that technology.[1] The "description" unfolds by either naming and analyzing the features of current, existing technologies, or by extrapolating trends and assuming features soon to be brought to use in technology. Second, the "evaluation" is to put said technologies to the test within normative frameworks by assessing them and discussing the permissibility or impermissibility of the development, implementation, and consumption of said technology.

Some issues lie between those two categories and are sometimes discussed in a confusing overlap of those categories, for example, the question of whether a robot could ever fulfill the requirements of personhood. This question can be interpreted from a merely descriptive perspective: either some technology will eventually tick all features of a given concept of personhood, or it will not. If it is not capable of reaching personhood, it might be caused by concepts of personhood that are not replicable and have some biologistic assumptions about the possibility of the emergence of personhood. Or the judgment rests on some strong assumptions about the ability of human-created technology to ever tick all presented boxes, which appears to be a rather strong thesis about the abilities of human creativity (and has comparatively few precedents in history).

However, the question about artificial beings reaching personhood could also be seen from a normative perspective: maybe someone does not want to share the conceptual space of personhood with anyone else other than the entities they are familiar with. Defenders of that case will play a kind of cat-and-mouse game with the opposite side, where the metalinguistic negotiation (Plunkett 2015) about what the concept of personhood should entail will always be moved to avoid the latest technological achievement checking all descriptive boxes under the cover of learning about the concept of personhood along the way. This game can go on until there are boxes that cannot be reasonably checked because they cannot be reasonably demonstrated to have been checked: for example, the existence of a soul or otherwise obscure constitutive personal interior. Or, even more obvious, the insistence that "a machine simply cannot be a person."

Thereby, when answering a question about ethics of technology one is presented with two fronts: On the one side, the metalinguistic negotiations which are often fueled by hidden normative agendas, and on the other side, an actual normative debate after everyone has agreed on the terminological inventory of a debate at hand.

For most debates, those two categories of descriptive and normative methods to approach technology are mixed. Metalinguistic negotiations and conceptual engineering efforts are both normative, as they represent discourses about the way we should use words and concepts, and to a degree, descriptive, as those debates lay the common ground of the very things we want to debate about. Consensus about the necessary features of personhood, to stay in this example, is a normative achievement that pre-structures any debate we might have about whether a certain type of artificial intelligence (or any type, for that matter) will be able to reach "personhood." These consensuses avoid normative evasion-arguments, in which goalposts are moved along the advancements of technology to a point where those goalposts are outside the playable field.

These elaborations serve to show two things. One, it is important to keep this distinction clear to avoid misunderstandings. The main achievements of philosophy have been, arguably, established by important distinctions that allowed for expanding the understanding of certain philosophical issues. One could argue that some of the philosophy's strongest disagreements have ultimately been solved by introducing well-placed distinctions that allowed for a reassessment of the core disagreements. One could read Kant's introduction of categories of perception as such a philosophical distinction that effectively ended the debate between rationalism and empiricism.

And second, allowing for negotiations about the proper use of a concept opens up a methodological space that will be exploited and built-upon in the following. The debate about personhood shows that its biggest challenge is to provide a consensus about the concept of "personhood." At the same time, the question of whether technology does (or will be able to) check off the subsequently spelled out features is one of precise descriptions, which will also affect the debates about other terminologies and their uses.

However, the conceptual space, i.e., the space in which we can identify new kinds by naming them, is vast and incomplete. Comparative linguistics has shown just how many languages approach the world in vastly different ways, from the Navajo language that has a circular time concept to languages without subjects. And with a methodology in place that recognizes the necessity for debating the meaning and correct use of terms in debates, it ought to also recognize the necessity for sometimes construct genuinely new terminology. With Wittgenstein's assumption of language boundaries constituting boundaries of one's world (Wittgenstein 1922, Proposition 5.6), it is a simple deduction to propose that if we expend our language through distinctions and opening new categories to identify new kinds, we are also expanding the boundaries of our world. Plenty has been researched in the empirical validity of the linguistic relativity on human world perception (as discussed under the name "Sapir–Whorf hypothesis" [Hoijer 1954]). Still, the philosophically more interesting point we are pursuing here is the impact of these expanded boundaries on normativity and the ability to describe certain phenomena in a different way. Without the distinction between intentional and unintentional body movements, we could not differentiate between a murder and a fatal accident. If we were told that turning a switch will kill someone in the room next to us (and will do nothing else), and we turn the switch and thereby kill the person, then we have committed a murder. If we have no idea about the situation and mistake the switch for a light switch, then we cannot be reasonably be accused of murdering someone. Without the invention of "intention" as a feature of describing behavior as action, we would not be able to tell the difference between two very different situations.

Distinctions are not an end in itself since not all distinctions are productive in illuminating normative issues. The long-held distinctions between man and woman in legal codices, or between races, have been grave mistakes to make normative distinctions where no normative difference was to be marked. Making descriptive distinctions as a means to allow for more detail in describing a situation, often is exploited to attach normative distinctions as well.

In the tradition of analytic philosophy, it seems appropriate in most situations to offer more distinctions rather than fewer, as those distinctions do often help to discover normative differences of situations previously unknown. However, it is important to keep in mind that distinctions like those made here are a matter of social philosophy. They may, however, be exploited to make normative distinctions where there are no reasons for such distinctions. The simple fact that two things are different from each other does not carry any normative weight. This mistake is one crucial part of the naturalistic fallacy, in which the erroneous belief that descriptive distinctions are doing normative work is being held.

2.4 Distinctions and Discovery in Philosophy of Technology

Our general methodological point is for concepts to emerge and invite debate about proposals of how to understand those new concepts. The underlying assumption here is that, especially in the philosophy of technology, genuinely new ways of describing a technology will allow for a genuinely new way of describing the problems associated with that technology or even identify new problems altogether, both conceptual and normative.

The importance of those open conceptual approaches in the philosophy of technology lies within the intense speed with which technological progress occurs. Often those technologies enter an unprepared general public with insufficient awareness of its consequences. Thereby, the general discourse of technology assessment depends on the often inappropriate characterizations of marketing or engineering departments. The way we describe technology is partly predetermining our judgment of it. Thereby, keeping one's terminological approach open to change to describe an equally open field of technology is paramount to describe and assess the technology at hand in the first place.

However, two things ought to be pointed out regarding the required openness for conceptual changes. First, the latency of philosophical progress, often criticized by futurists and technology-advocates (and apologists) to be a hindrance to progress (Hafner 1999). This latency is a useful counter in the context of market-logic dominated engineering goals and related hypes and unjustified bubbles. With incentives of overpromising and overadvertising technology that remains unintelligible to laypeople, it often remains unclear whether a new technology, in fact, poses genuinely new questions relevant to philosophy. Some distinctions offered by engineers will not hold as useful distinctions but are rather reflective of the science fiction they employ to protect their long-term engineering goals. Some others, such as strong anthropomorphism when describing robotic behavior, can count as a merely careless approach to language, or influenced from a perspective of selling certain technological devices and decreasing the resistance to new technology. Exposing distinctions without differences, like the way some engineers describe the behavior of their robots in colorful anthropomorphic terms,[2] requires that those fake distinctions have been made in the first place. Advocating for awareness in the descriptors used does not obligate philosophers to be language police of the sciences, but rather the referees of scientific discourse, of which language is a part.[3] If a discipline introduces distinctions and new concepts, philosophical work lies in reconstructing their uses, scope, and content.

Second, to keep inter-philosophical debates coherent, philosophy of technology needs to keep a tether to some basic philosophical concepts. Thereby, it appears reasonable to assess new technologies and their new approaches to a certain practical problem with the established philosophical concepts to see how far such an approach carries. Without certain principles in assessing and describing technology, philosophy of technology would not provide any productive insight but would merely generate philosophical justifications of a given moral trend.

Another example from AI helps to illustrate this point: The Trolley-cases, brought into the broad debate among philosophers by Philippa Foot (1967), aim to invoke some intuitions about the normative relevance of actions vs. inactions, as well as the already normative relevance of the amount of damage dealt in a situation. According to the Trolley-cases, the difference between action and inaction, as a first descriptive distinction, is also being considered normatively relevant due to some intuition that "doing something" is normatively more relevant than "doing nothing" (for an extensive discussion of the "doctrine of double effect", to which the Trolley cases allude to, see McIntyre [2018]).

However, a loose Trolley running down tracks and all the associated issues are, as Nyholm and Smids (2016) point out, thought-experiments, i.e., arguments of hyper-specific features that are supposed to isolate certain intuitions about those hyper-specific features. Yet, with autonomous cars entering streets, at least the arguments and distinctions made in the debate around Trolley-cases are of burning significance (see Keeling 2019). And even though there still seem to be open questions on what exactly autonomous cars ought to recognize as protection-worthy and the Trolley-cases discussion will not yield immediately transferable rules, the progress made in that field (for those knowledgeable of it) is to no small degree traceable to the extended discussion of the Trolley-case, beginning in 1967.

Thereby, introducing technology as posing genuinely new questions that require a new set of distinctions and terminology has the burden of proof. This burden of proof is fulfilled if the limits of current categories of describing and evaluating technology are surpassed. In the following, we argue that some applications of AI technology, namely artificial speakers, will do exactly that, by providing sophisticated artificial conversational agents which are not sufficiently described and evaluated by relying on the technology we have produced so far.

2.5 Reaches and Limits of Philosophy

Mere philosophical arguments cannot induce societal changes in understanding and attitudes toward technology. It would be a mistake to assume that the recommendations made in philosophical discourses would amount to public opinion. Philosophical discourse is not equal to public discourse. A philosophical project is best understood as mainly an ideally well-thought-through collection of normative suggestions of improving the discourse by providing clear renderings of arguments and questioning preconceived notions of certain concepts.

Thereby, rules of philosophical discourse are usually assumed to be somewhat different, and the conclusions drawn are often not immediately practical. One could describe philosophical discussions as rational pressure chambers to test the intricacies and extremes of certain positions and how they hold under extreme scrutiny. The results are, therefore, only an indication of where society could go, not where it exclusively should go.

Such a (meta-)philosophical position about the self-positioning of philosophy in public discourse of an open society has been prevalent for almost all of philosophy's history. It supports a pluralist, liberal approach to the prescriptions of how to live in a society, without shying away from making substantial recommendations based on rational arguments.[4]

2.6 Moral Philosophy, Morality, Ethics

Most public discourse is normative. In public discourse, questions of how we should live, both in a collective sense and regarding each person's behavior, are debated among a variety of participants with a variety of perspectives and "opinions." Many answers to those questions offered in public discourse are supported by moral arguments and moral codes, representing the moral convictions of different parts of society, and presented with different strategies, from public shaming to elevating exemplary behavior.

Those moral arguments lead to moral conflicts, i.e., to conflicts about the moral thing to do in a situation. Some people expect moral philosophers to decide those questions. However, moral philosophy is a different term for ethics, not for morality, and moral philosophers are not in the business of deciding morality. The difference between ethics and morality lies in the level of abstraction: morality is about guiding people's actions by giving them specific rules, while ethics discuss those rules, their merits, and justifications.

Take, for example, the difference between a moral code, say, Chuck Norris's Code of Honor (Norris 2020), and the moral philosophy of Immanuel Kant. Norris provides specific rules on what to do, how to interact with others, and what to aspire with your actions. Kant's deliberations about the principles of morality have led him to different versions of the Categorical Imperative (CI), which represents a function on whether the maxims of certain actions are universalizable as rules for everyone (Kant 1785). The CI may apply to Norris's rules, but it does not mean that Norris's found the only moral rules available.

When philosophers work in the normative sphere, they usually propose and test arguments on how to provide principles and theories that can function as normative guiding rails for individuals contributing to public discourse, i.e., they do ethics. Thereby, the role of philosophers in moral matters is not to propose or evaluate the "correct" moral answers, but to propose principles which allow every single moral agent to come to their own moral answers and defend them against objections.

If moral discourse is understood as public discourse and ethical discourse as philosophical discourse, then the expertise of moral philosophers lies in the latter, not the former.[5]

However, this position also infers that philosophers are not moral experts or authorities through their philosophical thought but merely the referees of moral discourse.

If morality is fought out in public discourse, then it should count as a collective, social effort that is open to constant review, debate, and criticism. In such public discourse, philosophers are best suited to organize this effort in reflecting on the language and rules of the discourse. This position is usually referred to as discourse ethics (Habermas 1983, 1992), and does not imply that any moral conviction is valid. The rules of discourses require agents to accept certain conventions that make it impossible to hold certain moral convictions reasonably. For example, the moral position that murder is good is impossible to hold for anyone who would object to being murdered for no reason (we can assume that it applies to almost everyone). Discourse ethics also do not hold that philosophers cannot have their own moral convictions. Philosophers do not stand on the sidelines as referees, pretending to be outside the discourse altogether, but they are also taking part in the public discourse, as they should (Arendt 1958). However, their moral convictions do not carry more weight for the sole reason that they are philosophers (in the opposite, for example, to the medical evaluation of a doctor, or the opinion of a baker on someone's baked goods). Instead, it is the moral philosopher's analysis of a moral argument, its universalizability, scope, consequences, etc., that is more akin to the evaluation of a doctor.

In consequence, this project does not make any moral assertions. A lack of moral assertions does not mean that there are no normative consequences from the theory laid out here, as it touches upon several debates within moral philosophy. Additionally, as elaborated before, the recommendations of using certain terminology in a certain way ought to be understood as a normative claim as well. However, as those recommendations are based on organizing a discourse, they are not intended to decide the discourse. What is judged as morally good or bad is, ideally, decided by a public discourse about the specifics of how to live, with rules guiding the discourse to guarantee an outcome every rational agent can accept.

2.7 AI Ethics

Lastly, the term “AI ethics” may receive a few needed clarifications through these characterizations of morality and ethics. Under the term “AI ethics” fall all efforts to formulate norms, rules, principles, and theories to provide the basis for regulating the technology of artificial intelligence. As AI has many unique features that set it apart from other technologies, some combining principles are deemed necessary to reign in the risks from unregulated development.

Thereby, the efforts undertaken in AI ethics are usually not to tell companies to specifically leave out certain features in their products or not pursue a development idea. Instead, AI ethics offers methods and guidelines that have been agreed upon by the general public after a participatory discourse and possibly some vote in a deliberative body (see for example the AI ethics guidelines of the European Union, EU Commission 2019).

As those rules and principles are ethical guidelines, they only lay out the ground rules for the moral discourse on whether certain apps ought to be developed, or certain business practices are morally defensible. The overall moral judgment is up to the public discourse. Take as an example the technology of facial recognition. Many philosophers have pointed out that according to AI ethics standards the technology creates many problematic effects that cannot be reasonably restricted. From harmful biases against minorities (Buolamwini and Gebru 2018), to misuses in law enforcement contexts (Garvie et al. 2016) to possible long-term changes to society (like mass surveillance), the chances of guaranteeing a net-positive outcome for this technology are not very promising.

The issue some philosophers (Vincent 2019; Yeung et al. 2019) have taken with this entire approach is the fact that those methods and guidelines are often superficial and unenforceable. To have their voices heard, AI ethicists are often required to enter the public rather than the philosophical discourse, advertising for their position along the rules of public discourse and possibly changing the role of AI ethicists to become moral experts in a field that is changing too quickly for the general public to keep up. At the same time, having AI ethics boards still give the impression that a company cares about the ethical ramifications of its work and has done everything right according to a rigorous ethics code. This criticism is known as “ethics washing,” as presenting some ethical principles is intended to wash the company clean of any moral failure in their development and product.

The project pursued here is insofar part of the AI ethics subdiscipline as it can serve as a guideline for the development of artificial speakers. We do not generate certain ethical standards but rather argue for the conceptual space being established that would allow for a genuinely new approach to certain types of social relationships.

2.8 Conclusion

Explaining one's philosophical method and approach when beginning an investigation seems like an important yet sometimes underappreciated step. The danger when doing so is to lose some readers right at the beginning, as they may take issue with the methods proposed here. It must almost be impossible, then, for those readers to continue. However, we can hope that not too many controversial statements were made at this point, as the next chapters will make even more.

Our primary concern in this chapter was to loosen the self-imposed limits of analysis by proposing to reconstruct terminology instead. A reconstruction takes into account the way we commonly use certain terminology and proposes how a definition free of (too many) inconsistencies could look like.

Part of these reconstructions consists in analyzing the adequacy of given distinctions and, wherever necessary, introduce new distinctions to capture differences in meaning and use. This method may lead to a different approach of explaining and furthering certain debates. Still, if the philosophical discourse is anything, then it is the place to propose unorthodox approaches and learn from them.

Notes

1. This is not meant to disregard other approaches of philosophy of technology, like postphenomenological, postmodern, or critical approaches to philosophy of technology. I am not only convinced that there is not one correct way of doing any kind of philosophy, but that a variety of approaches allows for the debate to remain productive.
2. An example taken from Sony's website for seeling their toy pet Aibo: "Give aibo food and watch as it digs in happily. You can enjoy meals at the same time or tell aibo to wait and watch it squirm in anticipation" (Sony 2020).
3. The idea of scientific discourse boils down to rules of scientific arguments. The body of works regarding the variety of arguments in scientific discourse is vast. For an extensive overview van Eemeren et al. (2014) is recommended.

4. This is not to say that philosophical discourse cannot or should not be challenged. In fact, many philosophers held highly problematic views that they defended using their own argumentative methods. For example, Immanuel Kant has being both arguing for universalibility in his ethical theory, yet also for the supremacy of white people (Boxill 2017). Similarly problematic may be Aristotle's theory of virtue ethics. His exclusion of women and non-citizens, i.e., slaves, from the realm of virtuous actions is a methodological weakness, especially considering that virtue ethics are highly depending on the virtuous agents, while other normative ethics that ought to be kept in mind when prioritizing his works over the works of others. Without constant reflection on one's own position in the hierarchy of power and distribution of privileges, many normative statements are in danger of merely reflecting one's own privileges and thereby reaffirming current power structures based on "intuitions" and "self-evident statements."
5. The concept of "moral experts," then, is a dubious one. A positive answer to the question whether philosophers have a privileged access to moral answers qua their ethical reflections is based on the assumption that there are moral truths to be known and those truths are found in philosophical reflection alone. Whether there are any moral truths to be known or rather merely univerzabliable maxims of action, is a controversial question that cannot be sufficiently answered here. However, in order to pragmatically undercut this controversy altogether, we may borrow René Descartes' idea of a "moral provisoire" (Descartes 1988, chapter 3), which recommends the acceptance that moral thought remains provisionary and open to review until those principles of moral truth have convincingly been argued for.

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CHAPTER 3

The Social Dimension

3.1 The Concept of the Social

As a term first coined by Emilé Durkheim (1895), the term "social" has been interpreted and defined in many different ways, with consequences for the entire social theory build around the concept. Durkheim himself considered the "social" as object of the science of sociology the collection of "social facts." However, hopefully without alienating too many sociologists, we can identify these social facts by reference to its everyday use as representing the collection of human interactions within a population.

Those interactions can be described as a network of relationships of human agents. This approach to identify the "social facts" as relationships is useful, as it allows to characterize most social events through the network of those social relationships. However, it ought to be clarified what relationships are and what makes them social.

Two conditions to define social relationships appear relevant here: they need to be mutually consequential, and they need to be embedded in a broader social network (a similar approach present August and Rook [2013]). The consequentialist condition for relationships to be social is that the actions of one party in this relationship are affecting the other(s). Often this condition is defined as reciprocal (White 2015). However, it appears that reciprocity may not be helpful, as some relationships are not reciprocal in the stricter sense (like an infant and their parents) but clearly social. They are, however, consequential for all sides involved.

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The embedding-condition is relevant to remain aware that social relationships are being formed, described, and experienced in a wider social network, with given rules, customs, and terminology that condition any relationship (Granovetter 1985).

In this definition, a famous singer and their fans are in a social relationship, as their relationship is mutually consequential: A fan buys a ticket to the concert, tells others about the artist, or shares news articles about them. The singer, in turn, performs publicly for their fans, addresses them collectively in social media, or produces art with their fans in mind. They are also operating in an embedded context, as their relationship is shareable with others and recognized by others.

However, we cannot expect the singer to be aware of every single one of their fans for this relationship to count as one between "fan and artist." The actions of fans and artists affect each other (even though to a differing degree).

In opposition to "pure" relational theories like the "agent-network theory" (Latour 2004, 2005), we do not claim that society cannot be analyzed through reference to non-relational social facts. Without the idea of individual agents and their preferences, norms and institutionalized rules, many of our relationships would not be explainable. Thereby, social relationships are only an explanandum insofar as our purposes here are to explain the dynamics of society as a relational concept. Whether a methodological individualism or a system-theory oriented holism is the correct approach to explain how social relationships interact is an open question, to which the answer is of no immediate consequence for this project. The point of view for this approach is not one of sociological theory, but philosophical: The fact that humans build relationships with each other, that those relationships are recognized or dismissed or otherwise judged by others, that those relationships differ in strength, reciprocity, depth, and relevance are all reasons to take them as a fundamental feature of how people are living together.

The explicit purpose for this project is not to reinvent sociology, but to find a conceptual structure coherent with many mainstream theories of sociology that allows for characterizing the social in a way that will open the social sphere to arguments of increasing its inclusivity.

In fact, understanding the concept of the "social" as primarily one of relationships between individuals, no matter how those relationships come about, allows for the conceptual space needed for the thesis pursued in this book. As we attempt to evaluate if and under which conditions robots may enter our social sphere, we now can ask more precisely: what kind of social relationships can we enter with robots, and can we describe those relationships with the categories and terminology that we have used to describe other relationships so far? That is: are human–robot relationships possible that are of a genuinely new kind, or are they bound to be in the image of human–human relationships, or maybe some other form?

3.2 Toward a Digital Society

One important detail for the upcoming reconstruction of the way we characterize human–human relationships and the differences, limits, and possibilities of human–machine relationships consists in the way the internet and the digitization have changed some underlying assumptions of social interactions. From public discourse and the relationship between policymakers and the general public on platforms like Twitter to intimate loving relationships between two people thousands of miles apart, social media has made new forms of social interactions possible. The speed of change of social relationships, in public and in private, has led some people to claim that technology has moved too fast. However, considering the inability to react to technological challenges socially, one may think that humanity is ill-prepared due to the lack of similarly significant social progress. The fear, then, is that we are woefully unprepared for the new possibilities of social interactions. The split between the "public" and the "private" is not always free of overlaps, especially on social media, where public and private conversations are as present as in a physical public square. However, this distinction helps to point out the relevance of the technological progress achieved in the last 30 years, especially when it comes to the challenges of democratic discourse as well as private uses of technology. The following chapter argues for the relevance of digitization in fundamentally shifting the constitution of public discourse and private lives. The argument does not claim to be a full elaboration on the society in the digital age, as this would not only surpass the scope of this project but is a substantial project on its own. Instead, the following aims to show that there is a reasonable way of talking about a "digital society" as a genuinely new subsection of human society in which people interact with others, build relationships, receive information, generate opinions, and spend a significant amount of time. This subsection is possibly detached, as new norms, expectations and roles have developed that are distinct from previous social developments. These changes have been happening ubiquitously over the last 20 years, and its consequences on society as a whole remain unclear.

3.2.1 Public Discourse

One of the most consequential changes in social interactions over the last 20 years has occurred in the realm of public discourse (Bouvier 2018). Those consequences are so severe that we have only started to understand what they are and how they affect the future of liberal democracy. On the one hand, the ease with which vital information spread has led to some substantial social changes, as the "Arab Spring" has shown. Without access to social media, these diverse, multicultural movements could not have spread with the speed and force as they have. On the other hand, liberal democracies have seen an increase in division and partisanship, quite possibly due to the formations of information bubbles and confirmation biases (Pariser 2011). If the internet provides many interpretations of the same event, people tend to trust the source that provides the interpretation that does not force them to change their convictions. An additional, previously unencountered issue for open societies that promote (relatively free) public discourse is the installation of bots and ill-meaning agents promoting the divisions by spreading targeted misinformation. Some of the more disruptive election results of the 2010s are traceable to have been subject to those kinds of attacks (Mueller 2019), in which foreign agents attempt to create particular public opinion by littering the digital spaces like Twitter with fake accounts spreading "opinions." Some of those may have not even been actual human beings, but chatbots.

These developments have, without doubt, changed the way many people interact with others in matters of politics. Even if those debates have not changed when they are performed in person, the digital public discourse has become a facilitator for fast-spreading, more pronounced opinions, group thinking, and confirmation biases, as well as verbal aggression like threats and insults. The growing importance of the digitization for public discourse justifies a look into the social relationships build in what we call "digital society." Not only are people using the internet and its offers privately, but many areas of public discourse have moved from the press and other traditional media, social gatherings like clubs, or public speeches to digital platforms of social media. With people now interacting with each other who would otherwise never have the chance to know of each other's existence, the term "digital society" appears more than adequate, and the concentration on its changes justified.

3.2.2 Private Relationships

The influence of how digitization has changed private social relationships does not only depend on the own use of social media. Unsurprisingly, if someone is not using those technologies, these new kinds of social relationships will remain absent in the immediate contact. However, the ubiquity of digitization suggests almost everyone has witnessed a change in some relationships. Reasons and causes for not using the new digitized infrastructure are manifold but often rest on a certain resistance in adopting new technology, or by simply not having those technologies available. Reasons for resisting to adopt new technologies are also diverse. Often, the lack of familiarity is a decisive factor for people foregoing participation. Many technological customs rest on a previous familiarity with other technology which may not be a given for every user, thereby forbidding any orientation with new technology interfaces and increasing the distance between user and technology. Thereby, without such familiarity, using technology, even when available, may be impossible (Vaportzis et al. 2017). This also increases the perception of risk, as a lack of understanding and familiarity with technology is leading to overestimating risks associated with technology (Digmayer and Jacobs 2016). New kinds of social relationships may also be assessed as a risk to one's own lifestyle, as those are mediated through a technology that is wholly unfamiliar.

On the other side, those who do adopt and incorporate new technologies into their lives may find themselves establishing genuinely new forms of social relationships. Similar to how the postal system has made pen pals possible, digital means of communication like social media platforms have made genuinely new social connections possible. Those new connections not only do not fit the given social descriptors but are also changing established social conventions as well outside the new forms of technology. Thereby, even those who resist new social technologies may be affected by other people using them.

Not only the quality of given social connections may change while new types of relationships emerge, but also the quantity of social interactions has increased. Current internet users often are equipped with more than just one way of being able to be contacted—email addresses, social media accounts with direct messaging function with either lasting or self-destructing messages, being tagged in people's posts "public" or "private" (i.e., a selected audience), and many more. Compared to the availability of people just a few decades ago—with only one phone in the house—the ease with which people can be reached (and with which they can present themselves to attract a different kind of people to relate to) can count as a fundamental change.

This increase in access not only works horizontally but also vertically, further mudding what is "public" and what is "private": entertainers (like singers and actors), politicians, important intellectual figures are often active on those social media platforms. Some aim to merely suggest accessibility, while others appear to interact with their fanbase, electorate, or general public online substantially. The ability to gain presence in the public discourse for almost any user has become an issue within the structures of debates, as social media can elevate even private pronouncements on the center stage of attention, if only for a few hours.

Since the outbreak of the coronavirus pandemic in early 2020, many people's social relationships have gone through severe changes. The demands of social distancing, beginning with refraining from physical contact to prohibited gatherings altogether, changed the way of many people's lives and their expectations toward social relationships. Many experienced for the first time the availability of digitally mediated hangouts. And even though many reported the discomfort of those meetings, this digital infrastructure afforded many the opportunity to stay in some close contact with friends, families, and coworkers, while a serious disease prohibited gatherings of any size.

And while the long-term effects of this disruptive event are hard to project, it appears that people have learned to adapt and invest in the infrastructure necessary to maintain social lives and contact in times where physical presence and contact is impossible. At least this for many traumatic experience may lead to an increased appreciation and normalization of those relationship that are intended to remain fully digital by the ones in them.

3.2.3 Embodiment and the (Un)Importance of Physical Presence

The developments in both the public as well as the private sphere show that many modern, digital relationships are not substantially mediated through physical presence. People fall in love with others without ever meeting them in person; psychotherapists are offering online-only sessions; coworkers may never meet while working cooperatively on a project (Chayka 2015). These forms of indubitably social relationships all have been made possible by the increased progress in digitization and the available infrastructure, but also by shifting social expectations of required physical presence.

It is crucial to acknowledge the decreased relevance of embodiment for many areas of social relationships (Lomanowska and Guitton 2016). Due to digitization, physical proximity and availability are no longer of the same relevance as they have been until this very moment in time. For one, because without physical proximity, establishing social relationships have been virtually impossible, except for sending letters or surrogates to do one's bidding. However, even those means always have been intended to lead to eventual physical closeness and interactions.

In contrast, many online relationships today are not intended to lead to being in the same physical place at the same time. Further, those who used the limited means available before the explosion of social media, video chatting platforms, and the constant availability online were often pathologized in their behavior. Those who preferred talking on the phone with others without ever wanting to meet them in person were considered anti-social. In the same paradigm, some people in the 90s and 2000s were diagnosed with "internet addiction"[1] due to their time spent in online communities, disregarding that these were early digital safe spaces for oppressed or outcast communities. Fittingly, the latest version of the Diagnostics, and Statistical Manual of Mental Disorders (DSM-5) does not carry this diagnosis anymore (APA 2013).

Furthermore, with the widespread technology acceptance and increased potency of technological connections, the internet has become a vital part of many people's lives, not as an alternative to "reality," but as an additional layer to reality, with specific social relationships, norms, and customs.

Lastly, before examining the influence the decreased requirement for physical presence has for our social categories and descriptors, the term "disembodiment" and the context we are using it in ought to be clarified. In most philosophical discourses, this concept is used in the context of "embodied cognition." According to the thesis of embodied cognition, cognitive features and capacities are inherently linked to the physical constitution, i.e., the perceiving body of the subject. Many approaches to artificial intelligence have been presuming the opposite, i.e., that disembodied cognition is possible to at least a large degree, if not as much as human, natural, embodied cognition.

The way we use "embodiment" and "disembodiment" here is deliberately avoiding the question whether embodiment is a cognitive necessity. For a mainly pragmatic perspective on social relationships, the answer to that question is—while informative—ultimately irrelevant. In the following, we argue that the presence of certain cognitive skills is not required for human beings to relate to a conversational agent. Merely a successful simulation or performance of those skills is required for most social purposes. In this sense, embodiment and disembodiment are merely the signifiers whether the physical presence is a necessary requirement for certain social relationships to emerge. Arguably, certain relationships are premised on physical presence, like "gym buddies." One cannot be gym buddy with someone else without both attending the same gym. However, we assume that "disembodied" relationships can emerge between two human beings. Disembodiment in the sense used here, then, is a feature of the relationship, not the agents.

3.2.4 Are "Facebook-Friends" Friends?

In order to describe these processes and progresses on social media, the established terminology to describe social relationship has been imported and applied, often to the disagreement of those not participating in the digital social media. One leading example may be one of "Facebook-friends." When Facebook started as one of the dominating social media platforms, their way of connecting people was by having users add each other to their respective "friends" list. Moreover, with differing uses, some people's "friends-list" grew to several thousand, while others intended to include only people that they would identify as "friends" offline as well.

Many cultural pessimists diagnosed a decrease of meaningful human–human connections due to the superficial nature of everybody calling each other "friends." While merely being acquaintances, coworkers, or random people one met at a party once (Mazie 2014). In order to regain the power over the distinction between "real" friends and those recognized as friends on Facebook, the prefix "Facebook-" was added: one has friends, and one has Facebook-friends. The essentialism of who can or ought to count as "friend" aside, this distinction shows two things: on the one hand, digitization creates new social categories that previously have been non-existent. In general, technology often facilitates the enrichment of possible social relationships. This enrichment of the variety of social relationships is arguably one of the meanings of globalization—not only "grows the world smaller," but also the social network grows thicker. With people establishing more and new relationships with others all over the world, new technology may provide relational space for currently unthought-of relationships.

Without letters, there are no pen pals. And without digital social media, there are no "Facebook-friends." Thereby, in denoting relationships of this kind as mere "Facebook-friends," those cultural pessimists acknowledged that these are genuinely new relationships.

On the other hand, this new category allows for some disagreement while spelling out the underlying difference in uses of the chances of digitization: While the term "Facebook-friend" denounces the superficiality of those relationships as "merely digital contacts," it also helps to recognize that many people have established friendships that are not "merely" but "purely" digital. The ability to communicate daily allows friends from very different places in the world to remain involved in each other's lives. The social options differ in magnitudes to just a few decades ago, in which one's pool of friends was mostly limited to people from the same town.

And not only does this apply to friendships, but also to most other forms of social relationships (except for those predicated on physical proximity, like neighbors or roommates).[2] People have crushes, fall in love, spend time together, exchange sexual pictures and videos, watch movies together—in short: they spend quality time together—without ever having to meet.

3.3 Assigning Social Descriptors

With these exploratory questions set out, we can now turn the attention to characterize social relationships. As stated in the introductory chapter about the invested methods, language is not merely a tool of reflection and thinking. Since the linguistic turn in philosophy, we recognize that language is part of how we approach the world and our mind (Glock and Kalhat 2018). That makes language fundamental to any form of analysis. However, after speech act theories (Austin 1962; Searle 1969) established that language is also mostly happening in pragmatic contexts, i.e., in context where we act, suggesting a “pragmatic turn” within the linguistic turn. Therefore, the way we use descriptors to describe and characterize a social relationship will, in the end, influence how these relationships are being perceived and performed.

For example, the difference in social implications and internalized expectations of referring to someone as a friend or merely a co-worker is rather apparent. Social descriptors reference specific social protocols and conceptual ramifications, like the conceptual requirement of being familiar with a friend (otherwise one could not be friends in the first place and would use the term of “friend” wrong).

The assignment of social descriptors only is descriptive because of their associated conceptual ramifications and conventional social protocols (Goffman 1956). Another example is the use of the word “friend.” Through the conceptual dilution of the term “friend” on social media, where every contact is referred to as “friend,” people started to refer to their friends that still fulfill stricter requirements as “actual friends.” In contrast, the (somewhat presumptuous) reference to some contact on social media is referred to as “Facebook-friend,” as pointed out just above.

The action of describing social descriptors is collective, even though individuals perform the process of ascribing itself. Individuals have to choose from a collectively constructed set of social descriptors, which pre-structures possible social relationships of human beings. Those linguistically pre-structured social relationships are neither finite nor exhaustive. They are continuously changed, and some new ones emerge while some others fall into irrelevance. However, they are as “real” as other social constructs as well. Without descriptors like “husband” or “wife” (e.g., due to the lack of specific institutions, like marriage), those relationships would not emerge. Of course, there could be marriage-like relationships, but with a different descriptor and possibly different associated expectations. Language does not just name certain activities and social relationships, but assigning a name to certain relationships allows for a sedimentation of habits and build-up of expectations and norms how to behave in those particular social relationships.

It is crucial to notice that with this approach, for social relationships to be recognized, they must be assigned descriptors. The act of assigning those descriptors is not random but a rule-guided process. Those rules are indirectly negotiated through the language games of naming and describing: in being part of a group of language users, the continuous use of certain words for certain states of affairs sediments into rules of how to use those words.

This reconstruction is very close to the ideas developed in Wittgenstein's "Philosophical Investigations" (Wittgenstein 2009, §43 and 138). The "use theory of meaning" Wittgenstein's claims that the meaning of certain words is determined by the way these words are used. This approach is an alternative theory to the common "reference theory of meaning" where a sentence or a word have their meaning because of their supporting reference in reality. A sentence "depicts" the world as it is and has meaning that way. A word has meaning because it refers to a specific thing in the world. Social relationships seem to have been understood in this referential way as well: the name for certain relationships is invented to describe certain social facts. However, in transferring the use theory of meaning onto the naming conventions of social relationship, we can better understand the crucial role of language in this process: through the naming of individual relationships and the sedimentation of those names (e.g., facilitated by certain technologies), the rules for identifying other relationships of this kind is made possible.

These conventions are often so familiar and self-evident that most people would not perceive them as anything but natural. Another example may help at this point to clarify. Nomad tribes that do not have a settled lifestyle with houses and streets may not have an elaborate term for "neighbor," since the specific location where one sets up their sleeping quarters is temporary and lacking relevance to reserve relational space for such a situation. They do not need a term for this situation, and consequently, any social protocol that may be attached "neighbor" is empty. Now imagine, this nomad tribe decides to settle down and build houses for each member of the tribe. What has been fairly irrelevant until this point, the physical proximity to other people, has become more relevant to them as they plan for residing in their places for the foreseeable future. With this practical relevance coming into the social setting of a group, a new term of a social relation appears adequate: the neighbor.

Many social descriptors, then, function to mark down an area in something we can call "relational space," which is the space according to which others can relate to the described person. They function as a heuristic according to which certain social protocols can be expected and enacted. Describing a relationship in a certain way communicates clues about the expectations toward the customs and norms of this relationship. Every new social relationship expands this relational space by adding to the manifold ways of how people can relate to each other. Thereby, the way with which people can relate to each other is unlimited, and an essentialist concept of social relationships seems inappropriate.

3.4 From Social Descriptors to Social Relationships

However, such a position renders most social descriptors connected to the relativity of cultural codification, since the contents of social descriptors vary with the cultural background. "Cultural codification" means that no characterization of a social relationship is free of already invested assumptions of the describer. Our tools in describing social relationships are shaped by the cultural conventions and uses of language, and may not fit in capturing the scope and depth of certain relationships in other cultures. However, it seems that some social philosophers believe in the natural occurrences of certain social phenomena that can be described with certain essentialist conditions. Questions like Aristotle asked about the "nature of friendship," then, are not only highly presumptuous about the way social relationships form, but also ignorant about the many varieties of such a supposed single term.

In Aristotle's philosophy of friendship developed in the *Nicomachean Ethics*, despite its intended limitations to adult male free citizens of Greece, has been taken as the basic account for most philosophers in the Western history of philosophy. And while most approaches identify similar necessary elements for friendship, like mutual care (Helm 2017), the analytic tradition of philosophy seems to follow Aristotle's distinctions.

Aristotle offers three different types of friendships, with different degrees of value for a virtuous life (Aristotle 1999). The lowest one is a "utility friendship," which is useful to one or both friends. A utility friendship is predicated on the material benefit of those friends for each other. The next is a "pleasure friendship" in which friendship is the source of pleasure for one or both. Friends that make us laugh, or provide interesting conversational topics, or are just good to be around can usually be considered "pleasure friends." Lastly, a virtue friendship is supposed to be one in which mutual goodwill and well-wishing are the defining features, with a shared set of values. For Aristotle, the last one of the most valuable as it is conducive to a virtuous and hence a good life, while the other two, though beneficial, are not leading toward a virtuous life.

Due to Aristotle's program of showing how friendships can contribute to a good, virtuous life, his friendship-reconstruction is strictly normative and hierarchical. Only friendships of a specified kind may add to an individual's virtue. The essentialist issue arises with the move that every friendship can be analyzed with these parameters, and philosophers use these parameters to approach and assess every social relationship of a specified kind.

Lately, in the context of the debate whether robots and humans can be friends, John Danaher (2019) developed Aristotle's approach to fit those new agents and their unique dispositions. He accepts the premise that human–robot virtue friendships may be possible by adding four features of this highest form of friendship and asked whether a machine can fulfill these: mutuality, honesty, equality, and a diversity of interactions. It seems reasonable to expect those social relationships that we call "friendships" being built on mutuality, honesty, equality, and a certain diversity of interactive instances.

Danaher goes on to argue that most of these conditions are mere technical issues that with enough technological sophistication may be overcome. Some other features, he argues, might be perceived as metaphysical impossibilities (Ibid., 6f). However, it is questionable whether these are features of friendships per se, or whether these are features of good friendships. Are we mistaken in calling someone a friend if the relationship is not entirely mutual? It seems like we are not, as we may be somewhat disappointed but still consider the less interested party a friend of ours. Similarly, the fact that we talk to a friend only on a video messenger and never see them in person, which would violate the "diversity of interactions" requirement, seems to set a qualitative requirement of friendship, not a conceptual one. Thereby, Danaher follows many others in the debate about robot-friendship by reducing "friendships" down to "good" friendships here, not "friendship" as a social relationship itself.

Nevertheless, by defining the term "friendship" qualitatively, as many people have done following Aristotle, they suggest that there is an essential quality to friendships. Sven Nyholm (2020, 149) elaborates that many different versions of friendships are possible, even with machines, but the "highest form of friendship," which is the virtue friendship, requires certain qualitative features that not every friendship fulfills. Namely, he worries that those four conditions of virtue friendship are required for fulfilling friendships. Without being able to achieve these highest goals with robots, as Nyholm argues, other consequentialist concerns take over and should move us to reject the idea of robot-friendships, like issues of alienation with other humans (Ibid., 151).

Moreover, while this is undoubtedly correct, it stands to debate whether this is a helpful way of both approaching social human–human relationships and social human–non-human relationships. First, because some explicit normative assumptions are transported with his terminology, and second, the silent premise here seems to be that friendships that theoretically cannot reach the highest level (due to metaphysical concerns, for example) are somewhat lacking. Yet, especially the latter is never elaborated upon, and it seems like it deserves some justification.

These considerations show that essentialism about social relationships, i.e., the thesis that certain social relationships have to exhibit certain unchangeable qualities, is inadequate. There are specific conceptual requirements to identify social relationships (as the standard example about conceptual truths "all bachelors are unmarried men" shows) no naming convention would work without. However, insisting on normative features of those relationships requires a rigorous interpretation of social relationships. And rigor rarely serves to praise certain relationships and mostly serves to dismiss others.

The rigidity, then, is the primary normative issue with social essentialism: philosophers have used this theory to devalue und dismiss many relationships. Essentialism like this allows disregarding people in those relationships who claim that they are just as valid as those falling under the essentialist definition. The claim that marriage can only be between a man and a woman dismisses the notion of same-sex love, and to this day this essentialism justifies anyone who puts into question the quality of romantic relationships of many kinds, like the love across races, classes, ages, abilities, and religions. In a similar vein, people have proposed that women lack the virtue to enter those high-quality friendships, thereby cementing the patriarchal structure of ruling men and ruled women. See for example Plato's thesis of the "inferiority of the soul of women" in *Timaeus* 42a (Plato 2000).

Essentialism proposes a possibly biased, hard definition of what a particular social relationship is or could be, before taking into consideration the experiences of people in those relationships. A use theory of social relationships proposes to understand relationships the other way around: with only a light conceptual framework at hand, assigning descriptors to social relationships are taken from the performance of those relationships. The understanding that the quality of certain social relationships, especially the notion of "true relationships" can be defined at all ought to be dismissed.

The consequence of an anti-essentialist position on social relationships is that there are no "true friendships" or "true romances." Evidently, that does not affect the quality of certain relationships. Just because we reject the idea that once all requirements are fulfilled, two people have achieved a "true friendship," people will not like each other less or treat each other with less dedication. We may even call those friendships and romances exemplary or worth following if we realize that there is no true ideal to follow but the conviction of two people to be in a satisfying social relationship.

3.5 Agent-Network Theory, Attachment Theories

The proposed relational approach has several intellectual neighbors that deserve mentioning here. The first one is the so-called agent-network theory (ANT), which seeks to understand the social as a collection of relations. Bruno Latour (2004, 2005), one of the leading proponents of this approach, developed ANT as an alternative to a methodological mistake he claims sociology has made: In not reflecting upon the concept of the "social," but defining it, other sociological theories presuppose what they claim to investigate. In the disguise of explaining the social, then, they are simultaneously constituting it. ANT allows for de-centering the subject, as it is understood as embedded in a network of other agents and in relationships with them. ANT is not limited to describing social relationships alone but is a methodological approach to describe phenomena via the analysis of relationships, e.g., the relationship in observing and interpreting animal behavior through analysis of the relationships of those involved in the interpretation of the animal behavior.

In a digital society with an immensely increased connectivity and thereby social relationships, such an approach provides the method to understand social developments through change in social relationships.

The methodological claims in ANT, however, are strong, as they reject any explanation of social fact that does not start with describing relationships. As stated at the beginning of this chapter, the approach here is not to unsettle social theory by criticizing its foundational assumptions, as Latour aims to. The relational approach here does not share those substantial methodological criticisms of sociology as a science but rather seeks to establish the undetermined and principally open nature of the social. The social, in the view purported here, can reasonably be applied to more than merely human–human relationships, as it is constructed by social descriptors and scripts rather than specific features of members of society.

This approach does not contradict the standard reconstruction of the social as the study of human society. However, it may add the asterisk that "human society" only has been the default due to a lack of alternatives, and speaking of "society" already presupposes what is meant by that term. Additionally, we can argue that with the dawn of communicative AI, a challenge to the otherwise intuitive notion of who and what is part of "society" is now available. However, ANT and other social network theories are important theories in the effort to recognize the relevance of presuppositions and preconceived notions in describing social relationships, as they also lay the groundwork for some ethical theories on moral patiency (Gunkel 2012). Lastly, while moral patiency is a topic of discussion in another chapter, the very idea that not every individual fitting in the concept of the "social" has to be an equal social agent can be established here.

Another approach to explain how social bonds are formed are via the "attachment theory." This approach's primary concern is the explanation of the relevance of attachments of infants for their psychological and social development (Bowlby 1982). Through the lense of attachment theory, many infants' behaviors can be explained as aimed to keep the proximity to attachment figures and the importance of those attachment figures for the guidance of a child's development. Social relationships, then, are often based on certain psychological attachments that can explain the emergence of different social relationships in different cultures.

Richardson (2018) has taken this approach to investigate the attachments developed human–robot relationships, especially in humans with autism. As autism often is associated with a preference for human-thing relationships rather than human–human relationships (Ibid.), the introduction of humanoid robots could help autistic people to develop social skills through introducing them to humanoid robots. This therapeutic approach can inform the design of humanoid robots and give autistic people a genuinely new path of learning social skills that they otherwise would not attain.

The use of attachment theory to explain some human–machine relationships, while a helpful way of explaining the preference of certain humans to relate to robots rather than other humans, can, however, lead to a tendency to pathologize human–machine relationships by seeking a diagnosis based in attachment theory. The risk here seems to be that attachment theory will interpret a preference of human–machine relationships over human–human relationships as principally misguided and a sign of a psychological issue. However, this disregards the agency of those entering human–machine relationships. It is questionable whether a psychological theory about individuals entering human–machine relationships is ultimately the adequate theory for what can be expected to be a social phenomenon.

3.6 Gender as Relational Descriptor

In an even greater essentialist assumption throughout the cultural history of humanity (Bem 1993), gender-differences have been taken to be associated with biological differences of the sexes and thereby predetermined as a biological determination of how society ought to be organized. These biological differences were invoked as justification for patriarchal power structures from primogeniture to the exclusion of women to hold public or religious offices to economic dependencies. Since its earliest inception, the core criticism of the social protocols and expectations associated with a certain gender-description consists in dismissing those protocols as based in a confusion of gender and sex. Simone de Beauvoir summarized these early issues by stating that "one is not born, but, rather, becomes a woman" (De Beauvoir 1949), pointing toward the performativity of gender based on certain gender roles and expectations.

Through the introduction of the distinction between gender and sex, many social protocols turned out to be based primarily on gender (Butler 1988). The realization that many of those norms and protocols are based on gender, however, makes their grounding reasoning circular: if gender is a construct, one cannot deduce social roles and certain social descriptors based on gender, as the construction of gender is determined through the descriptors of the relationships between genders.

Gender has been one of the key social descriptors along which certain relations have been formed, generating a particular heuristic according to which people can form their expectations. Identifying someone as a woman or a man is providing some information, as the social descriptors of gender are associated with certain protocols, but more importantly a certain "familiarity" with the other person.

The assumptions about the naturalness of those protocols due to the familiarity with them are another instance of essentialism, as any reference to "necessary" or conceptual elements of gender-specific social descriptors presupposes unchangeable features. Obviously, this description is limited to human–human relationships, even though it seems to have a strong pull for engineers and some AI theorists as a social heuristic worth keeping. Some argue that since "female voices lead to users assessing their device as more trustworthy" (Steele 2018), the replication of the positive features of gender-stereotypes ought to be used to improve upon the device's efficiency with the user. Clearly, the overall principle here is that anthropomorphism is a helpful metric to create relatable robots. However, it is clear that this approach is resting on the essentialist assumptions of gender and further establishes the certain gender-"typical" features as given and unchangeable.

For the suggestions developed in the next chapters about expanding the relational space to include human–machine relationships, it is worth keeping in mind that one of the main social categories, gender, is best understood as a social construct, not a biological fact.

3.7 Institutionalized Relationships and Relationships qua Humanity

Having defined relationships as mutually consequential, one could ask whether people stand in some relationship with other humans by merely being human. For example, whether someone is in a social relationship with a coma patient whom they have never met before is unclear, since the coma patient will not react to anything they do, nor will they be able to form any bond. However, we might want to claim that there is a human–human relationship dimension that comes into play via humans being humans. Shared humanity is usually invoked when insisting on describing even the most unconnected humans as standing in some relationship with each other. Coming from some religious traditions (like the idea that "we are all God's children") or some secularized approaches like human rights, the idea that there is a "shared humanity" that puts us all in a relationship with each other is well-established.

Thereby, a coma patient is, despite their inability to have any meaningful interaction with us, still in a human–human relationship with us. This seems to be the constitutive core idea of humanists when arguing that neither animals nor artificial intelligent agents can be in a human–human-level relationship with humans: they lack the core feature of humanity, thereby limiting the relationships of the latter to humans to transactional or pragmatic relationships, not relations-in-principle. Constructing humanity as a fundamental feature to distinguish humans from animals and other entities does not downgrade or dismiss animals (it is thereby not speciesist). It is instead a concept to establish the idea of shared humanity that nobody can avoid, even as a hermit with no social connections whatsoever. From the social relation as "human qua human," humanist philosophers conclude that we owe each other some basic virtues.

Many of modern institutions of civilizations are built on the idea that all humans are in some equal relationships, as the rule of law or democracy show. These institutions can, in this way, be understood as the realization of fundamental human–human relationships. This is not necessarily the most reliable way to establish the concept of humanity and the political theory that lead to the modern achievements of civilization. A relational approach to humanity is merely one way to provide a clear path to see society as analyzable through social relationships, i.e., the social descriptors we choose to apply to each other. "Being human," then, is not only an existential quantifier, but also a predicative descriptor.

For a relational approach and the idea that social relations are not limited to humans only, this claim does not hold much of consequence. The fact that humans stand in a privileged relationship with each other does not affect the ability to expand the social fabric beyond humans.

3.8 Domestication as a Social Technique

We stated before that technological progress often implies the opening of some relational space. Without a postal system, the social relationship of pen pals would be impossible. Similarly, without social media, the relation of being "Facebook-friends" would not be possible. There is, however, an even more important technology, or possibly rather a technique, which has made some social relationships possible that refute the idea that meaningful relationships are only possible between humans.

Taming and domestication are cultural techniques to control animals for human use and companionship (Zeder 2015). With its invention several thousand years ago, the purpose for having animals domesticized (i.e., in their homes) was most often for immediate use: more effective hunting strategies (with dogs), keeping unwanted pests out of the house and food storage (with cats) (Ottoni et al. 2017), easier agricultural food production (with horse-powered plows), warfare (with horses), and as a source of food and clothing (with sheep, cows, goats, pigs).

Moreover, while some of those initial purposes are still valid today, e.g., food production, some other uses have been replaced or fallen out of practice altogether (like the use of bulls for plows or horses for warfare). One purpose, however, has been constant in many different cultures and is today the predominant use of individuals for domesticized animals—they are used pets. A pet, i.e., a domesticized animal with no immediate life-sustaining purpose, is most often kept purely as company. Today, people bring cats in their homes not because they have a rat-problem, but because they appreciate another independent being in their homes.

The reason why the technique of domestication is so relevant for the concept of the social consists in the fact that people establish unique social relationships with their pets. Additionally, as stated before, without this technique, these kinds of social relationships were not possible. Pets are mostly kept as company. For most, they do not replace human relationships but are incorporated as an additional layer of the relational network. These relationships are in almost all cases not comparable to human–human relationships (some exceptions may apply to tamed great apes) but constitute their own category. However, with the distinctions laid out above, these still count as social relationships as they have consequences for both parties involved and feature certain embeddedness in their overall social network. For example, friends of a dog-owner usually recognize the importance of the connection between the dog-owner and the dog and the relevance of the dog for the everyday-life of its owner.

In the context of the essentialist debate, human–pet relationships demonstrate the mistaken assumptions of such a position: if we asked essentialists prior to any domestication or taming effort whether relationships to animals other than hunter/hunted would be possible, they probably would have rejected the idea of human–non-human relationships. An essentialist can only define the relationships that are, not those that may. The pragmatic approach, however, recognizes that anything capable of entering a consequential, embedded relationship with others is, in principle, a possible addition to the social facts.

One may interject that those relationships, if perceived as especially meaningful, are the result of inadequate and mistaken projections. Some people do, in fact, treat their pets like their children or friends, applying psychological explanations for the pets' behavior that are more befitting the behavior of a small child. Any theory that cannot explain those projections as mistaken about the fundamental depth of the relationship opens up issues with arbitrariness. Since pets cannot give an account of their perception of the relationship, humans tend to read whatever they want into those relationships. Fortunately, the approach proposed here does not encounter these issues. The main point here is especially that human–animal relationships are not describable with human–human relationship-terminology, rendering those anthropomorphic transfers problematic and almost always wrong. However, this does not mean that those relationships in themselves cannot be social or meaningful.

The very idea proposed here is that this is a different category of relationship but a relationship nonetheless, and that a particular technique—the technique of domestication of animals—has made this kind of relationship possible. Describing and measuring human–pet relationships against human–human relationships must fail, as those relationships are of categorically different kinds. Nevertheless, this categorical difference does not render them invalid or meaningless. Essentialists who argue against human–pet friendships are not mistaken about the quality of human–pet friendships; they are mistaken about applying their assumptions about "friendship" to human–pet relationships.

While technological progress like the letter, social media, and others have made certain human–human relationships possible, the importance of domestication lies in the fact that it made human–animal relationships possible for the first time.[3] And this transference, as we argue later on, can also apply to artificial intelligence and its associate autonomous agents. Thereby, AI should be considered less on the level of an invention or discovery of a particular technology, like fire (Google's CEO Pichai claimed AI to be as impactful as fire or electricity [Goode 2018]), but more on the civilization-making technique of domestication.

3.9 Against Relational Arbitrariness

It seems appropriate to say a few more words on one main worry about rejecting essentialism about social relationships: that with the rejection of essentialist guiding rails of social relationships, we are headed for social arbitrariness. The main worry here is that the pragmatic approach of social relationships runs into issues with some counterintuitive claims of social relationships. Since a pragmatic approach does not rely on hard definitions of "true relationships" against which the contents of individual relationships are measured, people may claim relationships with objects and other entities, like with holograms (Gollayan 2018). The issue here is mainly relationships with supernatural beings, para-social relationships, and relationships with aliens.

3.9.1 *Supernatural Relationships*

Supernatural beings have been part of human social fabric metaphorically and metaphysically. Metaphorically, "spirits" of deceased members are sometimes still considered to be among the living, with certain influences and obligations of the living toward the deceased. Piety for the dead is not only a metaphorical way for the living to generate norms that guarantee traditions and the stability of social interactions but has long counted as an element of social interactions with the dead. However, since these are purely metaphorical and beyond any measurable evidence, those interactions are not considered social, as these relationships are not consequential in both directions, and even less reciprocal.

Similarly, some people claim to be speaking to God(s) directly, which would constitute a supernatural social relationship (this is explicated in the concept of a "personal God" [Wainwright 2012]). Many societies have the concept of social human–God relationships, with differing degrees of accessibility. Prophets, priests and priestesses, mediums, and rainmakers are usually considered those that can stand in direct contact with some supernatural entities. These (projected) relationships of humans to some supernatural influences have been constitutive of some basic human institutions like morality, theology, and some forms of governance (like law and constitutional principles).

If there are humans with consequential access to Gods, and many cultures developed the idea that it was at least theoretically possible for humans to stand in a certain privileged human–God(s) relationships (like prophets), then this would constitute a genuinely new social category of relationships.

However, the metaphysical and epistemological issues encountered with claims of being in a human–God social relationship are relevant here. Those who do not believe in supernatural entities will have a hard time understanding and accepting the contents of these supposed relationships. The main philosophical issue, however, is one of epistemology: without being able to share these relationships with others, they remain inherently asocial. Relationships to the supernatural are not embedded in a social-relational network but are discrete. One of the few conceptual requirements we proposed for social relationships at the beginning of this chapter was that they could be embedded, even if people keep them secret. They need to be demonstratable, and human–God relationships are hardly so, even if the presumption of the possibility of those relationships clearly affects the way cultures are structured.

3.9.2 Para-social Relationships

The phenomenon of the para-social is related to the supernatural, and human–God relationships are often portrayed as paradigmatic "para-social relationships," as the one-sidedness of people's relationships with supernatural entities presents itself as if it was a fully two-sided relationship. However, it seems worthwhile to differentiate the supernatural from the worldly para-social phenomena because of differences in social relevance (in which the former is outweighing the latter) and the relatability and accessibility (in which the latter is more important than the former).

Para-social relationships are one-sided relationships, where one person extends emotional energy, interest, and time, and the other party, the persona, is completely unaware of the other's existence (Horton and Wohl 1956). Some of the most common candidates to be the persona, i.e., the entity onto which people project their relationship-illusion, are celebrities and fictional characters (Liebers and Schramm 2019). Of course, not every fan of a particular pop artist is in a para-social relationship, even though this term has been used to describe the impact of media characters on a consumer. As stated above, for the relationship between two entities to be considered social, it must be consequential for both parties, even if not equally consequential. The relationship between a fan and a celebrity is, overall, consequential for both parties, as the celebrity without fans would not be famous. Para-social relationships with celebrities are, in this regard, suffering from misattributions about the correct social descriptor and thereby the character of their relationship. A fan that seriously claims that the artist they adore is writing music "just for them" can be considered in both a social and a para-social relationship with the artist, as those are not necessarily mutually exclusive. One can be correct about some features of a relationship, and wildly mistaken about other features.

Moreover, while mischaracterizations of the extent and intensity of relationships could be considered para-social, as some people are mistaken about their relationships, some other forms of para-social relationships are categorical mistakes. People claiming to be in a relationship with fictional characters like James Bond (Ibid.) are indubitably mistaken about the attributability of relationship-descriptors to fictional characters. And in this misattribution, they could be seen as mistaken about the concept of relationships, as fictional characters do not behave in a sense that fits the same category as human behavior. Even more problematic are para-social relationships with organizations, even though those are often metaphorical or not claimed to be "relationships" in any comparable sense to social relationships. Fans of some sports teams may claim to be "married to their club," but this does not mean that they see themselves as unavailable for other romantic relationships. In contrast, those claiming to be in an intimate relationship with their favorite fictional character often are similarly infatuated as people in love.

Para-social relationships, then, do not have to be considered moving forward since they do not meet our definition of social relationships. Thereby, pragmatic theories of social relationships have tools to resist the accusation of being too permissive in the reconstruction of the concept of the "social."

3.9.3 Relationships with Aliens

It may seem presumptuous to spend any time on a topic currently best left to science fiction writers. However, some small remarks on how we may relate to alien intelligences are appropriate here, considering that mathematical models and astronomic discoveries over the past decades suggest that we are not alone in the universe (Shostak 2018).

The question of how we would (or will) relate to alien intelligent agents is more informative if understood as a thought experiment: the strategies deployed to answer the question of how we could relate to those entities tells us more about the concept of "relating" invested in those strategies. One main observation here is that nobody would suggest approaching those agents with trying to establish relationships akin to human–human relationships. It would count as a categorical error to assume that their way of relating to each other is anywhere close to how we relate to each other. Asking how a “human–alien friendship” would look like and if it would ever reach the Aristotelian level of virtue-friendship demonstrates the mistaken essentialist assumptions quite nicely.

We can safely assume that we would immediately and self-evidently expand the relational space to cover all possible human–alien relationships that can be established with them based on the pragmatic limits between them and us. Thereby, the flexibility of the social fabric, i.e., the willingness of people to include all sorts of social relationships, from non-present human–human relationships to human–pet relationships and possible human–alien contacts, is a necessary premise. Any concept of social relationships that determines which relationships are valid and which are not appear to be investing unjustified normative premises.

3.10 Lessons for Imminent Changes or: The Rise of Human–Machine Relationships

To summarize the approach taken here: social relationships are an important entity in analyzing the dynamics of social interactions. Taking this position does not intend to provide an elaborate sociological terminology, but rather a method with which the diversity of human connections, both with other humans as well as with non-humans, can be analyzed. It showed that technology changes the relational space quantitively by making people more accessible and providing genuinely new human–human relationships. However, technology also changed social relationships qualitatively and that in two ways: first, some social relationships do not require physical presence of interactions anymore, as was previously required. New communicative technologies allow for purely digital social relationships to occur that are perceived by those in them as equally fulfilling as social relationships with people in their physical proximity. And second, since the domestication of animals, human–animal relationships can count as some form of social relationships due to their interactive, embedded nature, and the relevance of those connections for both pets and humans.

Therefore, even categorical changes in social relationships are common and constant, and most people may not even realize them. Humans are fundamentally social animals that are capable of relating not only to others in their immediate proximity but also—somewhat abstract–to the entirety of humans via their own humanness.

With these preliminary inquisitions in place, the realization that qualitative and quantitative changes of social relationships often depend on technological progress allows for a turn toward the current technological revolution: artificial intelligence. We observe that people start to build relationships with artificially intelligent agents that may count as social relationships, even as relatively primitive ones. There is noticeable reciprocity in those relationships, even though this reciprocity is not derived from a state of mind (like emotions), but pragmatically. Due to a lack of terminology and established social human–machine relationships, the description of those relationships resorts to anthropomorphic projections and terminology.

And because of those anthropomorphic projections, a discourse developed that questions the very possibility of human–machine relationships. People who are willing to build those relationships are often being ostracized by a critical public, who read into the ever-growing number of AI appliances a swift, uncalled for, and potentially dangerous shift in the social fabric and human's relationship with technology. And while it seems unclear where these debates go, the two motivating issues for this project will remain: people will keep building relationships with these artificial agents, and the sophistication of those agents will increase as well. Both of these together justify a closer look into the underlying social descriptors and may warrant an expansion of the relational space into social human–machine relationships.

Notes

[1] Internet addiction has been split up to describe specific forms of the disorder, and one has been "Cyber Relationship addiction", which is supposed to denote the addiction of "using online relationships to replace real-life friends and family" (Young 1996), proving that this diagnosis was conceived from a strong norm-standard. This is not intended to relativize some obsessive uses of the internet which causes people to suffer. However, the generalized pathologization of "excessive" internet use, even though

many internet uses are pro-social, interactive, and helpful, made it possible to abuse this diagnosis for merely educational purposes (Kershaw 2005).
2. Interestingly, there have been ways of relating to "number neighbors", in which people text the phone numbers right above or below their own phone number (Ansari and Ries 2019).
3. Needless to say, that domestication as a game-changing technique of civilization has also made a variety of new human–human relationships possible due to the relief of work, the availability of food, bigger coverage of distances, and so on.

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CHAPTER 4

The Basics of Communicative AI

4.1 Definitions

Definitions of what AI is and what it could be have been plaguing the debate about it from its inception to this day. Whether it is in legislative efforts, philosophical debates, or engineering departments, consent about a definition of artificial intelligence is notoriously hard to come by. Some argue that AI ought not to be defined at all, as any definition will limit the way we can interpret computational intelligence and possibly pose a hindrance in creatively approaching AI.

However, we are justified in using a definition of AI that supports the effort undertaken here, which is to explore how our relations to artificial speakers will evolve. This definition is not meant to cover all possible versions of AI, nor does it aim to unify the debate to a coherent total. In fact, the opposite is the case: the definitory work undertaken here ought to be considered to only cover a small subsection of what can count as artificial intelligence. Thereby, it could be understood less as a definition, but rather as a semantic characterization of a specific technology. Primarily due to the wide variety of applications that operate with algorithms considered "artificially intelligent," such a unifying definition is neither required nor would one be helpful.

A constructive approximation of what can be considered artificial intelligence is laid out by Jacob Turner in "Robot Rules" (Turner 2019, 16):

H. Kempt, *Chatbots and the Domestication of AI*,
Social and Cultural Studies of Robots and AI,
https://doi.org/10.1007/978-3-030-56290-8_4

> Artificial Intelligence Is the Ability of a Non-natural Entity to Make Choices by an Evaluative Process.

Due to his focus on the governance and legal ramifications of AI technology, this definition focuses on two main functions of AI: the autonomous activity of such technology (by making choices) and the evaluative process that precedes those choices. How exactly the "evaluative process" unfolds is as a result of this not relevant, as it is to be understood as primarily an issue within engineering paradigms and the application of the AI. A sorting algorithm trying to match a customer with a product they most likely are interested in is going through an evaluative process as much as an autonomous car when it navigates traffic. There is, however, a danger that ought to be kept in mind when using this phrase. Engineers may understand such an evaluative process as "assigning values to different options and choosing based on the most valuable option," with "valuable" being relative to the goal (i.e., the likelihood of a match, or highest outcome, etc.). Sometimes, this process is thought to be a representative model of how humans ought to make their decisions as well. That is, however, usually not how normative deliberations on how to act are coming about, as deliberative processes are often more complex and not quantifiable in a binary pro- and cons-list. Thereby, the term "evaluative process" is understood as the simple assignment of value-parameters under a predetermined goal.

This "evaluative process," then, becomes complicated when other parameters ought to be considered. The ethical considerations are concerned with the incompleteness of the parameters that are involved in such an evaluative process, with some questioning whether those parameters can be broken down into computable pieces (i.e., whether machines can make moral decisions that are not hard-coded into their evaluative process, like Asimov's three laws of robotics (Asimov 1950)). This is not limited to self-driving cars or killer drones but begins with matching algorithms, e.g., a search algorithm that can lie (Bendel 2018) or that returns unfiltered information to a query requesting information needed for committing suicide.

How exactly this necessary second level of evaluation, the evaluation of the determined choice according to some ethical considerations, can be computed is one of the main challenges for "moral machines" and is a subject of controversies surrounding AI ethics. However, the definition at hand is still helpful, as it can be expected that the second level evaluation will still be an “evaluative process,” whether it be a utilitarian calculation, some pre-installed virtues, or the sorting of the choice under some action-types and the ability of their maxims to count as universalized rules. Thereby, “choices based on evaluative processes” is a solid start.

One dimension, usually considered part of AI, is missing from this definition. Knowledge representation (KR) is a concept describing the ability to use received information for inferences. As the basis for an AI’s “understanding” of the world, this is the source from which the evaluative process operates (Brachman and Levesque 1985). Without knowledge representation, there simply would be no inferences, i.e., evaluative processes, as the KR is the base from which an algorithm can process the incoming information.

Since Turner is interested in the pragmatic dimensions of AI, as his goal is to provide principles according to which some normative frameworks to regulate AI can be built, knowledge representation is less of an issue for his definition. However, KR is considered the core methodological issue where many other issues with AI will be decided (Smith 1985). Thereby, even if KR is not central to the question elaborated upon further in this book, as the philosophical issues with KR are different from the mainly pragmatic perspective pursued here, for the technical aspect of NLP algorithms, knowledge representation remains a central issue.

4.1.1 An Additional Distinction

So far, AI is achieved in its most basic terms when it can make decisions based on an evaluative process. The confusion about finding an all-encompassing definition of AI might stem from the diverse range with which AI is being utilized. From self-driving cars to sorting algorithms to chatbots, every autonomous technology claims to be powered by some AI, mudding the definitory waters by confusing principles with concrete entities. Just because there are different uses of AI does not mean that AI itself is incoherent and, thereby, indefinable.

Yet, there are some useful internal differentiations to be made for different practical purposes. From a philosophical perspective, machines that utilize natural language to communicate with human beings may be of a different consequence than machines that merely behave based on gestures or in coordination with humans. This difference can be demonstrated when these developments are viewed from their (not yet achieved) practical end: the concept of a multi-purpose robot that can master every behavioral task (except for speaking) is of a different philosophical relevance than an artificial speaker that can master every conversation. The former represents the supremacy of robots in their physical constitution, while the latter outmatches humans in their cognitive and conversational capacities. On a more current scale and thereby more relevant is the difference between a highly sophisticated matching algorithm, like a music-matching service and a chatbot.[1] The former cannot interact with us directly, as the input is merely based on our listening behavior, possibly without the awareness that an algorithm is using this as data for providing more music. At the same time, the latter, through the use of natural language alone, provides a richer, interactive experience.

These observations suggest that there is a philosophically relevant internal distinction of different applications of AI, which will be called “conversational AI,” in opposite to “behavioral AI.” Phenomenologically speaking, being confronted with an autonomous machine that moves without any guidance through an obstacle course appears like an impressive feat of technology we can get used to as a new standard of what technology can do. In fact, from clocks to traffic lights to automated assembly lines, most of us are currently not only used to seeing automated processes, but are expecting them to take over parts of everyday life. In opposite to this phenomenological expectation of technological prowess, being confronted with a machine that keeps a conversation with us on a sophisticated level has an entirely different impact, as it not only walks the same space as we humans do, it also talks in the same categories as we do, regardless of the technological feat that powers these skills.

This does not mean, as stated before, that this is a technological difference or one that conceptualizes one to be more “intelligent” or more useful than the other, as the measurement for “intelligence” is even more opaque than a definition of AI. For most practical purposes, humans project their assumptions of “intelligence” toward the machines they are interacting with, and a central thesis to this book is that linguistic skills suggesting certain cognitive capabilities motivate people to attribute higher levels of intelligence to those devices and programs that provide these linguistic skills.

This distinction is to focus the attention on machines that converse with human beings using natural languages, while not discarding the others. The main name for “conversational AI” used here is “artificial speaker,” in order to include the wide variety of NLP systems. From chatbots to personal assistants, the common skill of these programs is to respond to natural-language input with adequate answers in natural language as well.

What exactly distinguishes conversational AI from other forms of AI? We can characterize conversational AI within our definition as the forms of AI that make evaluative decisions based on natural-language input and produces natural-language outputs in return that is responsive to the input. Or, quite simply put, it talks. However, "talking," as one of the most common human activities, is deceptively difficult to program. Especially the output, i.e., the adequate response of the artificial speaker to the human input, is hard to create in a continued and appropriate way, as the evaluation parameters of said output can vary with changes of speech conventions. In opposite to other natural-language using AI, like translation algorithms or voice-operated machines, conversational AI produces semantically meaningful, syntactically correct sentences autonomously in a conversational setting.

Artificial speakers fulfill this definition of conversational AI and are, in the standard tropes of Sci Fi literature, the most likely candidates to cause issues that are not limited to ethical considerations but to questions in the philosophy of mind. For some reason, framing philosophical questions around AI presupposes a NLP-portion, as if it was self-evident that AI would be using natural language to communicate with us. The assumption that natural language is the self-evident candidate for any intelligence to communicate with us rests on the projection of intelligence onto artificial intelligent systems. Moreover, the main issues arising in the philosophy of mind debates about self-awareness and consciousness of those machines is predicated on those machines being able to communicate their mental states to us, again using natural language.

Thereby, it is justified to take NLP as a specifically relevant form of AI—not only because of its phenomenological impact but also because other issues within philosophy of AI are predicated on it.

Any AI that can establish and hold a conversation with human language users, then, is included here. Obviously, this opens up questions on when "holding a conversation" is fulfilled, and what level of sophistication an artificial speaker has to exhibit for the phenomenological impact to appear. And while these are pragmatic questions that will ultimately be decided by the available technology, the assumption that eventually this technology will have that effect is justified.

Most chatbots today not only fail the Turing test, but also do not appear all that sophisticated as they can be tangled in conversational loops fairly easily, misunderstand or do not understand at all phrases we expect them to understand, and are generally very limited in the scope of their output and conversational topics. The expected advancements in the area of natural-language processing, however, will produce chatbots that are, in fact, of increasing levels of sophistication. Mitsuku (Worswick 2020), the current record-holder of winning the Loebner prize five times in a row, as well as Google's Meena (Adiwardana et al. 2020), a recently introduced chatbot that is claimed to surpass Mitsuku's performance, are both capable of holding open-ended conversations about basically every topic imaginable. And with more competition on the way, it is only a question of time until the average chatbot will have improved so much that it will be of phenomenological relevance. Currently, however, we are mostly interested in the capabilities of a specific technology, not in the average token of it.

4.1.2 Embodiment

The definition of "conversational AI" does not exclude embodiment; and while the focus lies on entities currently not embodied, this is due to the lack of embodiment in the available tokens, not as a principle. The most relevant examples of artificial speakers, thereby, are not embodied entities like Sophia The Robot, who remains a singular entity with limited conversational skills. It is rather text-based chatbots, voice-based personal assistants, and other NLP algorithms that populate the group of "artificial speakers." Due to their role as primarily conversational partners, their embodiment is neither necessary nor requested by those interacting with these artificial speakers. Moreover, while researchers believe that embodiment is a key for developing higher cognitive states of AI (Duffy and Joue 2000), especially "linguistic intelligence," i.e., the ability to hold conversations, is much more related to the linguistic model imitating human speech rather than a body.

For example, the question of whether machine-embodiment will or ought to play a role in the way humans relate to machines cannot be answered in this regard. Mainly, because behaving robots in one's home, like a cleaning bot or a general housekeeping bot, may also have conversational programs that allow for intellectual interactions between the bot and its human owners. The relational potential of an embodied artifact will be higher, as movement, physical presence, and haptic interactivity are providing more opportunities for relational bonding.[2]

However, the approach taken here does not require differentiation of this kind. If a multi-purpose robot or some advanced home-maker robot is capable of keeping a conversation, then we can consider those partly conversational robots, even though their primary purpose is a different one. It is undeniable that embodiment plays a role in the way artificial intelligence is perceived, and in consequence how human beings relate to the technology.

From the fact that embodied robots will affect us differently than disembodied ones, some have concluded that embodiment is a requirement for the long-term goal of creating general AI (ibid.). Furthermore, while this thesis is controversially debated but not altogether implausible, we want to offer two arguments here against the premise of a necessity of embodiment for conversational, social AI.

First, human–human relationships are more and more often non-embodied. Due to social media and digital instant communication services, people can build connections with other people around the world, possibly without ever meeting them. Some refer to merely digitally mediated social contacts as friends, and would sometimes claim that those relationships, despite lacking embodiment, are more important or significant than many of their relationships with physically present people. The importance and significance of those relationships do not lie in the physical constitution of both communication partners, but in the stability associated with communication, invested and rewarded trust, and availability.

This does not mean that those relationships are replacing all relationships that require physical presence, especially considering that an eventual physical meeting is often associated with those digital relationships. However, it demonstrates that human agents are capable of establishing significant relationships with others without requiring those relationships to be based on physical presence or proximity. It thereby seems very much possible to establish a relationship with someone who is principally out of reach for a physical encounter. Without the physical presence-requirement for human–human relationships, it seems irrelevant to insist that human–machine relationships ought to be based on the physical presence of both parties either, rendering embodiment a sufficient, but not necessary condition for relational attitudes. Many people may have a harder time relating to an artificial speaker knowing that the speaker only "exists in a cloud." However, considering the development of social relationships turning away from physical presence as a necessary condition, we ought to assume that people will not always differentiate between their purely digital human–human relationships and their purely digital human–machine relationships.

Second, conversational AI may or may not be embodied. It is an open question and one that we do not attempt to answer here, whether embodied AI will perform better in conversational circumstances. Thereby, embodied conversational AI is merely a subsection of conversational AI, not a category in its own right. When we discuss AI, therefore, we usually speak of conversational AI, whether or not it may be embodied.

If the requirement of embodiment were included in the definition of AI considered here, in turn, it would exclude chatbots and the complicated process being made with those algorithms that are not embodied. The fact, however, that Sophia The Robot has been awarded "citizenship" (CIC 2017) while being ultimately a rather unimpressive robot (Sharkey 2018), while Mitsuku and Meena and others are ignored, speaks to the long-term relevance of embodiment.

As will be pointed out in the coming chapters, this approach is indifferent toward the question of whether some chatbots exhibit general artificial intelligence or merely highly specialized and successful narrow AI, i.e., the chatbots do not have to be self-aware. Thereby, the controversy of whether general AI requires some embodiment to gain consciousness is mute for this project, as the guiding assumption is that the projections of human speakers toward their artificial conversational partners are based on pragmatic and phenomenological reasons, not on the ontological constitution of the AI.

4.1.3 Some Terminological Notes

Due to the limited relevance of embodiment for this project, several terms will be used interchangeably that should usually be kept distinct for other purposes. The main name used here is "artificial speaker" for an object capable of holding conversations. Chatbots and digital personal assistants are prime examples of communicative AI. However, in the following chapters, other terms for AI agents will be used that will not influence the arguments made here. Those terms are "conversational artificial agents,", "speaking machine," and simply "robot." Both "machine" and "robot" tend to imply embodiment, even though it seems sensible to speak of artificial speakers as "digital machines." Especially in the context of the robot rights debate, however, we will stick to the established terminology and elaborate on the limits of the debate in terms of questions of embodiment. And while the position defended there is decoupled from embodiment, it is not required to talk about "chatbot rights" in opposite to robot rights, as some of those arguments still hold for artificial speakers. And while some authors may disagree with this terminological strategy in the robot rights debate, the choices will be justified.

4.2 A Short History of Chatbots

Robots and machines have been fascinating humans for centuries. From the intricate trappings of Ancient Greek temples, in which through clever mechanics statues of Gods started emitting noises, to the first humanoid robots in the late nineteenth century, the idea to recreate artificially what otherwise only humans could do was a long-held goal of engineers.

Even with the first purely mechanical robots invented in the early twentieth century, powered by steam like everything else back then, the goal was to recreate human behavior, like Elektro, the smoking robot at the World Fair in New York City in 1939. The idea behind this and other robots of the time, before Alan Turing proposed a test to measure artificial intelligence, was to show off the latest progress in mechanical engineering.

The recreation of many human behaviors seemed possible by only using nuts and bolts and steam if the mechanism was intricate enough. However, the recreation of intelligent behavior, that is behavior geared toward solving a given problem, was out of reach, as those machines were possessing no intelligence in any sense of the word. However, the urge to give even those purely mechanical machines a face and some humanizing features (like smoking) at this early stage can be seen as a harbinger for the future development of robots.

With the invention of electrical calculations and systems utilizing the speed and precision of those calculations, the contemporary computational era was born. At this point, with a smart enough systems-engineer, processes could be set into motion that would allow for the solution of long-held mathematical problems and the precise calculation of enormous undertakings like the moon landing and running atomic power plants. Still, even those systems were nowhere near to be deserving of the title "intelligent" (besides being designed intelligently), and the recreation of human speech, which was now traveling through phone cables and airwaves, was one of the more complex systems no computer was able to achieve yet.

The theory of symbolic systems, the approach to intelligence as a manipulation of symbols to realize predetermined goals, was the foundation for the first wave of artificial intelligence creation, proposed by Newell and Simon (Newell et al. 1959). Symbols are considered the unit of recognition, and when combined in a system, one can manipulate those symbols to come to a new symbolic arrangement, which may be called a thought, imagination, or recognition. This approach resembles theories in the philosophy of cognition, according to which cognition is based on rules of symbol-manipulations. Empiricists and rationalists may fundamentally differ about the nature of those symbols, as Leibniz claimed logical rules to be the central symbol manipulation. In contrast, Hume and Locke claimed sensual data ("atomic impressions") to be the central piece of cognition. With Kant, this debate was resolved as he claimed that the categories of perception were the rules with which we can manipulate our sensory data.

In order to create a system of symbolic manipulation, the dependencies between the symbols and their associated meaning within the system had to be hard-coded by hand. That means that the relationships of how symbols can be manipulated to create specific problem-solving pathways are dependent on the coder's foresight and ability. Especially in speech recognition, this approach was poised to fail, as recognizing human speech not only as an audio source but also as carrying units of meaning connected within this audio source, is almost impossible to manually code into an algorithm. Without a language-understanding infrastructure, comparable to Kant's categories of perception, the meaning of certain words independently from each other is almost impossible to equip an algorithm with by hand.

In 1969, the "AI winter," a coined termed for the period of dramatically reduced government funding of AI due to the failures of unrealized expectations, set in when DARPA (the Defense Advanced Research Projects Agency of the Department of Defense of the USA) changed its funding strategy to specifically fund missions and projects with concrete applications instead of more abstracts theories of AI and ambitious intelligent tasks that in hindsight were well out of reach at the time. Moreover, when in 1974, the "Speech Understanding Research" (SUR) project failed to deliver a useable product for effective speech recognition, funding was essentially killed. With some of the later on important ingredients still missing, the way AI was developed rested on what Haugeland (Haugeland 1985) calls GOFAI ("Good Old Fashioned AI").

However, this approach did yield some successes. When in the 1996 and 1997 IBM's Deep Blue managed to defeat the world champion of chess Gary Kasparov, it seemed that AI had reached a milestone. With IBM winning in something perceived as requiring human creativity and foresight, AI reached a level of complexity that deserved to be taken seriously not as mere theoretical research but as a powerful tool to create more complex problem-solving systems. This success was made possible through the hard-coding of strategies and standard moves and then selecting a next move based on simulations of all possible moves that may follow after, effectively limiting the "creativity" of Deep Blue to the standard strategies of chess masters. A similar approach was used to create chatbots, as conversations could be reconstructed with some hard-coded responses and conversation strategies. With a sufficient amount of installed combinations of input recognition and appropriate responses (i.e., the "knowledge representation"), one could simulate a conversation that many people would perceive as pleasant small talk. However, in contrast with chess, small talk and human conversation in general rarely have a specific goal to which one could train a robot to work toward, thereby making inferences and "winning moves" harder to program. Any appropriate response of a chatbot to a particular input can potentially count as a "winning move" if the goal of a conversation, or a chatbot's function, is unclear. This is why many of the interactive chatting icons in Microsoft Windows or similar early chatbot software (like the infamous spyware "Bonzi Buddy") felt more clunky and uninspired.

Not till the early to mid-2000s, when Google employees published the idea of using huge data sets for pattern-recognition as key to the next level of AI (Halevy et al. 2009) did the development of chatbots take off again to a notable degree. This time, as the next two chapters will elaborate, both the way of computing the detection of input and the appropriateness of the output were fundamentally different. With the overall goal to increase user engagement and answer specific tasks given by the user, the construction goal of chatbots changed as well, from an experimental, boundary-pushing approach to a search for an application. The current approach, based on Machine Learning (ML), allows for the utilization of the massive amounts of data that have been produced by the rise of social media. Instead of providing paths and decision trees for an algorithm to go through to come an evaluative choice, machine learned algorithms are unguidedly trained with data sets. Through those, an algorithm detects patterns and heuristics that may be foreign to humans but yield reliable results. This way, a primitive chatbot does not explicitly understand the sentences it is presented with, but instead picks up specific words or phrases and guesses an appropriate response based on probability function learned from the data. The more sophisticated a chatbot is, the more precise will its probabilities be in evaluating the sentence meaning, including the previous conversational context, pragmatics, and possible speaker-related idiosyncrasies (mistakes, slang).

This development has led to chatbots that not only can fool people into thinking that they are speaking to another human being, but that manage to keep a conversation as bots (i.e. without pretending to be human). With ever-growing and more sophisticated data sets, the success of machine-learned chatbots is a promising sign that the quality of those bots will only increase.

The main challenge for chatbots currently is to hold a conversation that has no specific topic or rules, in opposition to the main application in customer service contexts (which can be fairly scripted due to the complaining nature of most customers when seeking customer service). Mitsuku and Meena and several others appear to be the most competent artificial conversationalists at this time. With the reservoir of data, money, computing power, and talent behind its back, it seems like Google's Meena could become the standard for the next years.

With an ever self-improving neural net, a chatbot could be taught in ways that are similar to how humans learn a second language by correcting their grammar until the chatbot identifies the rules and exceptions from the rule while picking up on language conventions, the appropriate moments and phraseology of speech acts, etc. These deep-learning methods may be the key to chatbots that remain entertaining conversational partners to many people.

4.3 Is ML–AI the Future of Artificial Conversational Agents?

There are many common misconceptions about the current state of AI that should be addressed here. The main one is that the intelligent behavior produced by current AI methods uses and applies reasoning methods similar to human intelligent behavior. The implicit hope that this assumption seems to be driving at is that with machine learning and enough data, we may be able to construct a general AI.

The way these ML-based agents perform their task is through so-called "neural networks," i.e., a network that learns connections between certain identified patterns with certain training data and can then apply these connections to derive predictions on similar input data. “Training” a neural network, i.e., feeding it data for it to create outputs that are in the intended form, will create a network of connections (“the neural model”) which can then perform the mentioned “evaluative choices” from our definition.

Many human intelligent behaviors are informed by specific pattern-recognitions based on empirical evidence, especially the more basic reactive or habitual behaviors, putting the neural network-approach in proximity to primitive human behavior. The conclusion is, then, that with just enough data, a refined neural network, and sufficient computing power, we can recreate human reasoning to the degree that is sufficient for applying it to almost any kind of problem. This would, for most purposes, be considered general AI. At least some philosophical theories of mind (“computationalist theories”) support this approach (Kurzweil 2012).

However, two premises in this argument are doubtful, invalidating the conclusion. First, that human reasoning can, in fact, be built on pattern-recognition alone, and second that machine-learned AI can reach such a level with our current technology. The latter assumes that with enough computing power and data, the current methods (or at least their evolved versions) will suffice to create more and more sophisticated algorithms that will be able to solve more than a narrow set of tasks. Whether this is an overly optimistic assessment of a technology facing its limits (Mastorakis 2018) or a reasonable assessment of where ML–AL can go is up for ML theory researchers and engineers to determine. However, it is worth noting that recent developments in quantum computing (Marr 2019) might soon provide the previously unavailable computing power to train algorithms on more complex data in a shorter amount of time, thereby strengthening the defenders of ML–AI.

However, the philosophically more relevant claim is about the method of machine learning as a foundation for human reasoning. With our concentration set on chatbots, the requirement of knowledge representation and the inferences made from certain types of input are especially relevant for this project. The benefit of ML–AI over symbolic AI has been the ability to accumulate data to create databases from which certain language models can be trained and then modified to perform other intelligent tasks. Thereby, it is no longer necessary to hard-code responses, but it is possible to utilize “pre-trained” language models and adapt them to the task of generating responses. Recent neural language models such as GPT-2 (Radford et al. 2019), XLM (Lample and Conneau 2019), XLM-R (Conneau et al. 2020), LASER (Schwenk 2019), and others provide this advanced type of knowledge representation from which chatbots can be trained.

This makes the open-domain chatbots such a big deal: not only do they require some elaborate language models, but they also require a heuristic quality function to train the neural network toward specific conversational goals. Meena's Sensibility and Specificity Average (SSA) turned out to be a useful measure for Google's engineers to determine the quality of a conversation (Adiwardana et al. 2020, 2), giving their chatbot the perspective of "winning moves" within the language game. Thereby, it is the requirements we demand of the neural network that will guide the development, and it seems doubtful whether we can find a way of creating tests and demands for neural networks that solve problems the way we want them to.

However, language models do exhibit the capability of detecting specific patterns within human language use, and some semantic theories suggest that the meaning of a word or sentence can be picked up entirely by representing the context of its use.

As the technology stands right now, most AI applications resemble more highly automated machines than actually autonomous problem-solvers (Das 2019). Even the most advanced AI systems currently master only a minimal set of tasks, and the way they are constructed does not suggest that they will be able to transfer their "skill" to another very different and unrelated area. It seems implausible to assume that the most advanced matching algorithm of music preferences will soon be adding the ability to also identify street signs, calculate the best street route between two points of interest, converse with two human speakers at once, and create new recipes based on a random input of available ingredients.

An additional issue with ML–AI being limited is the need for data. Many intelligent behaviors of humans are not producing detectable and trainable data, like the strongly habitualized and trained movements of a hairdresser. Thereby, some areas have to remain challenging for AI to learn until a system is put in place that can learn skills by producing its own data to learn from it as human learners do by trial and error.

4.4 AI—General or Narrow?

Philosophical debates, or rather debates in which both philosophers and non-philosophers participate in, are often centered around the conditions of how to ascertain that certain kinds of intelligence are achieved. One helpful distinction that has received significant attention of this purpose is differentiating between "Narrow AI" and "General AI" (Davidson 2019).

The term General AI (GAI, sometimes artificial general intelligence, AGI) was coined to characterize the capabilities of AI that are not focused on solving a specific task, but rather can transfer its problem-solving techniques and skills to a much more extensive array of tasks (hence the "general"). These AIs are capable of finding their own strategies of solving a task they have never encountered before, similar to how humans are capable of using their intelligence to design problem-solving strategies to problems they never had to solve. This capacity usually is considered to require a certain level of "reasoning," which in turn suggests individual mental states or states of consciousness. However, especially in opposition to narrow AI, it becomes clear that this term can be read as a pragmatic one that does not necessarily require some metaphysical positions about the philosophy of artificial minds.

In contrast, Narrow AI (NAI) is understood as AI that can only solve specific problems. Unlike GAI, narrow ones are constructed in a way that does not allow for skill transfer. They may self-improve their strategies of autonomously solving the tasks they are programmed for, but are by design limited in the tasks they can address. The previously mentioned matching algorithm for music streaming services can serve as an example here. Through constant improvement in its sorting and matching algorithm through analyzing data sets, observing the success of previous suggestions (e.g., longer music streams), and straight-up user feedback, this AI may become the most potent tool in guessing what a user with an individual history in listening may like next. However, this highly sophisticated tool certainly will not be able to navigate a self-driving car or even match a user with a shopping item. It is thereby narrow in use. This is not necessarily a statement on the complexity of specific tasks, as the term "narrow" may suggest. It is instead a characterization of the limited range of use of this type of AI program.

The philosophical relevance of AI often refers to the expectations of GAI. A complex GAI-agent may exhibit high levels of self-consciousness and claim some rights or express certain desires to rule or opt for survival at all costs (Bostrom 2014). Those assumptions about the nature that general AI will exhibit seem hard to justify as they are clearly anthropomorphic projects about specific features of intelligence. Some authors seem convinced that intelligence and ruthlessness are almost conceptually connected; others seem willing to presuppose that intelligence will be accompanied by a will to survive (or rather "a will to remain"). In reality, we have no reason to believe that this kind of AI will ever come to be, nor that GAI will exhibit this kind of behavior.

And while some AI theorists and engineers have publicly voiced their concern that we eventually will build a system that is uncontrollable and that is thereby dangerous to human society as we know it, the use of AI currently is serving the system it is supposed to endanger. As it stands in the current state of development, AI ethics and regulation is focused on narrow AI not *despite* its narrowness, but *because* it is narrowly applicable and hyper-specialized. Narrow AI, such as facial recognition algorithms, autonomous weapon systems, and insurance algorithms are easily exploitable, and the way many algorithms pick up biases in their "training phase" due to latent and hidden biases in their training data, has only recently attracted some attention. Yet, countless AI applications are released to the market and often reassert the current power structures with little reflection about who is profiting and who is actually suffering.

Due to the expansion of language models from which neural networks can be refined to form all sorts of conversational AI, we may instead speak of "general NLP" as a subsection of "narrow AI." As far as any linguistic task is concerned, the available language models may be able to support them. Meena, according to Google's own measurements, is performing relatively close to human speakers in terms of their SSA requirements, allowing for the next phase of developing a different, even more refined requirement.

Considering that the philosophical assumptions of this project are resting on artificial speakers improving their skills further, we can consider ourselves justified in projecting that those artificial speakers will reach levels of sophistication with the method at hand.

4.5 The Economics of NLP

In the following, we are going to deliberately leave the philosophical setting and go into the social and economic circumstances of how artificial speakers, and especially chatbots, are being constructed. This excursion has several reasons. First, without reflections on the social circumstances and biases, an assessment of the potential of artificial speakers is incomplete. Second, it is worth keeping in mind where and why artificial speakers are being used to assess their future uses and potential issues that arise from those uses. And third, those circumstances of development, distribution, and use of artificial speakers can tell us something about the overall context of AI developments and the subtle directions they take.

The first issue, the fact that artificial speakers are always being constructed and worked on in a particular social circumstance with engineers recreating their understanding of how human communication works and how human–machine communication should work, will be looked into in the following chapters. However, at this stage, it is crucial to notice that chatbot development occurs mostly without specific input from the general public, but rather with data sets that are supposed to represent said general public. And since there are strong arguments to be made about the bias in data sets (Yapo and Weiss 2018), the assumption that with "clean" data sets, "clean" artificial speakers are possible, is misguided (Kempt 2019).

The second issue is their use and developmental context. Many artificial speakers are currently developed as chatbots to serve various customer-relations purposes (Sweezey 2019). This use is simple but effective, as most customer complaints are of a similar nature and can be resolved by relying on a somewhat scripted chatbot that understands one of the few standard complaints customers bring forward. Similar to the dreaded voice-guided options of the early 2000s, in which voice-recognition software was supposed to pre-organize customer complaints, this use seems to only scratch the surface of what this technology is capable of. However, as those chatbots are created fairly quickly with strong incentives for corporations to use them at least in their first-level customer service interactions (Kojouharov 2018), the competition to create more and more useful chatbots, i.e., chatbots that serve the customer-service purpose best, is vibrant. It is thereby expectable that corporations will keep investing in ML–AI to not only improve their customer service chatbots, but also in chatbots that play a role in other trends in marketing (e.g., guerilla marketing, in which a chatbot is infiltrating public conversations to subtly pitch a product). The market not only to replace human workers with chatbots but also make those chatbots spread (mis-)information about specific topics is already observable and obviously problematic.

The third reason to reflect on the economic system in which artificial speakers are being constructed is the long-term orientation of those bots and the incentive for big internet corporations to harvest data. The necessity to harvest data to create trainable data sets provides strong incentives for powerful corporations to take controversial measures to acquire data. The fact that many internet users are woefully unaware of how their data is being used, and that those who are aware remain powerless to change anything of substance, is an important reminder that ML–AI is not only an economic issue but brings its own moral issues along.[3]

Most artificial speakers are being developed in a business setting, both to make human labor less critical, like in automated customer service situations, as well as gathering data on users to improve the product. The incentives for companies creating customer-service chatbots reside in creating chatbots that resemble human speakers to a degree in which regular customers will not be able to tell the difference between chatbots and human agents, at least when restricted to customer-service related issues. And while the Turing test has set the target of creating human-like artificial speakers, the process of anthropomorphizing those speakers is probably best understood as a measure of their marketing and application, less as a progress in recreating (human) intelligence.

The main takeaway here is that for the empirical basis of philosophical speculation, development of NLP algorithms is driven by the logic of businesses and revenue-oriented enterprises. That applies not only to customer-service related businesses but also to those with access to a vast vault of language data from which highly specific artificial speakers can be constructed and improved.[4] These types of data accrue in apps to chat in or talk with, like Facebook Messenger and Google Hangouts, in YouTube comments, Tweets, etc. Anywhere where written or spoken language is used, there is the potential to harvest and create data sets for training algorithms.

4.6 Turing Test and Its Human Limits

Lastly, the Turing test as a test for the intelligence of artificial agents ought to be revisited. While this has always been a controversial issue (for an overview of this debate, see Oppy and Dowe 2016), the point of the Turing test has been rewritten. While initially conceived by Alan Turing in 1950 (Turing 1950), the test was supposed to establish a stable condition on how to assess artificial intelligence. If, said Turing, the machine could not be reasonably distinguished from actual human agents, then it would exhibit similar levels of intelligence. Thereby, passing the Turing test means that a meaningful step in AI development has been reached by creating a machine that is at least as smart as humans.

Obviously, this test is lacking in several areas that render the question of whether some artificial speaker has reliably managed to pass it rather pointless for philosophical debate. First, it is arguably not a test about the intelligence of a machine, but the test of the intelligence and epistemic capabilities of a human agent interacting with a machine. Passing the Turing test, then, merely means that the machine has managed to pass as a human being. However, it is humans that determine what passes as a human and what does not. This criterium does not tell us much about the actual intelligence of the machine, but rather if the machine met the expectations of those interacting with it. With those expectations never being specified, this means that the conditions of passing the test, despite Turing's attempts to specify its conditions, are up to the epistemological capacities of the human test takers.

A clear example is provided by the chatbot Mitsuku, which often has to tackle questions of whether it is human or machine. Many users are already thrown off by the fact that Mitsuku can use slang and make typos, which is not reflective of the intelligence of the chatbot. It is, however, telling about the assumptions with which humans approach machines. Without such antics, many people would likely assume that Mitsuku is a robot. However, the best way to pass the Turing test, then, is to play the player and not the game by manipulating the machine so it will not be caught being smarter than a human ever could be.

Second, this test is highly arbitrary, as it only measures the intelligence of AI using NLP. The use of natural languages to communicate with humans in their own languages seems like a special requirement that not every engineer is willing to agree to. There might be ways of creating intelligent machines that are purposefully not equipped in communicating with humans on any level, but rather are intended to operate in stealth and opaqueness, e.g., military robots. Those may exhibit high levels of intelligence, like independent risk-assessment based on the situation they are in, without being able to pass the Turing test. The idea that natural language is an indispensable part of intelligence may be accurate for human beings, but catering to our epistemic expectations, as the Turing test suggest AI should, seems ultimately naïve. No AI engineer owes us an algorithm that can communicate with us so we can determine its intelligence from our perspective.

Thereby, passing the Turing test cannot count as an independent sign of intelligence. It may, however, be a relevant test for a chatbot and its appeal to human chatbot-users still allows measuring the conversational capabilities of a chatbot. The idea that passing the Turing test will hold anything of relevance for our assumptions about the internal processes of a machine, however, is misguided (for a collection of arguments against the Turing Test, see LaCurts (2011).

4.7 Conclusion: Why Think About AI in the First Place?

Many philosophers currently fight a decisive battle that ought not to be glossed over here: many of the developments of algorithm engineering, including artificial speakers, are highly problematic. On the production side, we face biased data sets and the lack of reflection among an often culturally homogenous cohort of engineers, market incentives, and the pressure of start-ups to pursue any profitable idea to gain traction. On the reception side, the lack of AI literacy of the wider population and unawareness of how many decisions users make online are both informed and recorded by algorithms for future use opens the door for the ethically questionable approaches on the production. And on the regulative side, both the speed of innovation as well as a lack of awareness of many politicians suggests that technology innovations will pervade society before they are adequately governed. Thereby, the current state of AI poses many risks, on almost all fronts.

Yet, this project chooses to focus on an issue other than the immediate problems of applied AI ethics. It concentrates on the issue of how some of the most sophisticated algorithms we will see are soon going to change the way we perceive the categories of our social fabric and change our expectations about the rules of social interactions. While self-driving cars pose problems of responsibility and autonomy in driving, and drones and killer robots in war zones create issues of possible human rights violations and the future of violent conflict, chatbots will be able-even in a highly specialized narrow AI-to reach us in areas where no other technology has reached us in a comparable way. This phenomenological impact is worth exploring.

The central assumption here is that the methods developed in the last few years, and the progress made with those methods, are constant and promise to deliver chatbots so interwoven with people's lives, that they are impossible to disentangle. Philosophical work like this is speculative, but not futuristic. The assumptions made on the technological side are informed by current trends and realistic projections of those trends into the mediate future. The philosophical side in this book takes those technological projects and aims to both delineate consequences for our thinking and approach to chatbots, but also to provide the space for normative evaluations.

As it stands right now, AI will likely be able to become sophisticated enough that artificial speakers will emerge capable of creating conversational spaces people will use to relate in previously unseen ways.

Notes

1. From a technical perspective, some chatbots may also count as matching algorithms that merely match inputs and outputs of natural-language conversations.
2. However, it is an open question whether the constant availability of a chatbot, like a constant companion, is not offsetting this potential, while a robot remains at home.
3. Additionally, it may be pointed out that the energy consumption of huge data centers is considerable. According to some estimates, ML–AI applications will require the biggest electricity consumption out of all technological processes (Garcia-Martin et al. 2019).
4. As Elliot Turner notices, Google's Meena has trained on a full TPUv3 pod (i.e. Google's cloud computing system) for 30 days. Turner approximates that this has cost Google 1,400,000 $ to train this chatbot model, with an energy consumption of 294,912 kWh (Turner 2020). The economic imbalances within the chatbot-industry are an additional reason to expect market-concentrations, which in the case of chatbots as possible social agents is also a power-concentration.

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CHAPTER 5

Artificial Social Agents

The development of AI is hard to guide. Many attempts to give AI engineering efforts certain ethical guidelines have been put forward over the last years (Fjeld and Nagy 2020) that may or may not influence some of the development. However, philosophical theories ought to be somewhat immune to the latest technological developments and argue for some principles (or the lack thereof) that do not depend on engineering contingencies. Thereby, it is somewhat unclear where a philosophical theory on AI engineering can position itself. It should be receptive to how AI is being programmed and developed in order to help us understand our relationship with technology. However, it also ought to guide and inform our relationship with technology, and that way, form our goals with which we create technology.

This approach attempts a middle way of both trying to include and extrapolate current AI developments while at the same time keep the awareness of the contingencies and market-driven developments of many of those technologies.

5.1 Rethinking Social Descriptors

5.1.1 The Appeals of Anthropomorphism

The appeals of using human intelligence as a blueprint for creating artificial intelligence are apparent. Starting with Turing's original proposal,

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human intelligence is the most complex problem-solving system that nature has produced. So much so, that human intelligence is capable of recreating intelligent behavior in artificial agents as well. Nevertheless, as previously pointed out, the issues of defining artificial intelligence without limiting it are due to both the method used to program AI and the variety of applications that are supposed to be intelligent.

In the case of speaking machines, the move to imitate intelligent human behavior is even more obvious. For one, communicative AI is fundamentally designed to appeal to be interactive with human speakers. Thereby, some artificially intelligent behavior ought to be identical to human behavior. Without precise adherence of discursive rules, no conversation would be possible between humans and AI, or between humans themselves. Any conversation operates in front of a semantic common ground (Stalnaker 2002) and some shared pragmatic ground rules of conversing (Grice 1975) and, specifically, arguing (Gethmann 1979).

Without abiding by the human-made rules of grammar, communicative AI would be a pointless endeavor. Thereby, AI is being used to acquire the natural language processing skills humans have, and at the same time, AI is being used to use those skills to navigate human conversations. These two restrictions are representative of the epistemological challenges of creating artificial intelligent agents: without humans recognizing the behavior of AI as intelligent, the intelligence of those AI agents is pointless. Their intelligence is oriented toward our purposes, and if their intelligence is not purposeful for us, it might as well not be considered intelligent except for some cognitive reassurance that if its intelligence were directed toward human purposes, it would do well.

Anthropomorphism works as the blueprint for creating different forms of AI, including communicative one, not only because it allows for creating agents that behave in intelligent ways but also creates an intelligence close to our own, making its intelligence more recognizable and relatable to our own. Without similar patterns of association (or similar common fallacies), conversing with an artificial speaker may seem either dull or unintelligible, rendering its achieved intelligence neglected by human agents.

Consider a similar case: we can learn how to fly from studying and recreating bird wings. The initial idea is adequate, and one can learn a lot from understanding how birds can fly using their wings. However, to only recreate bird wings as the means to fly would not lead to the next relevant inventions of aviation, like propellers, pressurized cabins, and jet engines. Innovation and the transference of different principles of engineering and physic made it possible to fly across oceans and into outer space. Moreover, while birds may not recognize the flying capabilities of an airplane, we may not recognize the intelligence of AI once we avoid anthropomorphism.

5.1.2 The Fallacy of Anthropomorphism

As it stands, the incentivized research and development will produce more and more convincing artificial speakers. However, the terms "convincing" or "realistic" have been applied without much philosophical reflection. The standard assumption for conversational agent-development is that, since those speakers use natural human language, they ought to behave like a natural human speaker as well. The research incentives inform those assumptions of creating user engagement in order to collect more data and improve user-profiles so that they can be targeted with ads and services more precisely. Additionally, Turing's idea of measuring intelligence of a machine by the pragmatic conditions of an imitation game provided some theoretical base for imitating human speech patterns instead of actual intelligent behavior.[1]

In this scenario, conversational agents that speak "like humans" and *as* humans are the most convincing ones. The terms "convincing" or "realistic" assume that those artificial speakers are capable of fulfilling certain expectations of human-typical behavior; and those expectations are easily exploitable. Due to the quick development of AI, the understanding of most users what AI is capable of and what that means for their daily interactions with other agents online is underdeveloped. The lack of what some people call "AI literacy" (Aickelin 2019) creates the opportunity to fool people easily. It is safe to assume that most people had unknowingly interacted with a chatbot or other form of conversational AI online when they were under the impression of talking to an actual human being. This is both an impressive technological achievement as well as a testament to an unreflected recreation of human communicative behavior.

However, what is the meaning of "convincing" in this context? Chatbots, e.g., are called convincing when their conversational output remains undetected of being uttered by a machine by human interlocutors. Since being "convincing" is a pragmatic condition, it is highly context- and user-sensitive what counts as "convincing." The context-sensitivity refers to the expectation of human speakers when beginning a conversation. When writing with a customer service representative online, we may be convinced easily, as most of those conversations remain fairly structured and unpersonal. In the opposite, the annual contest to win the Loebner prize creates a unique conversational context in which human speakers attempt to uncover a chatbot.

For any human speaker to be convinced, then, a chatbot ought to at least create the conversational context. This context is depending on several conditions. First, the input ought to be processed correctly, including the pragmatic dimensions of said input: a convincing chatbot will understand a variety of speech acts, slang, colloquialisms, and, if not, react accordingly.[2] Second, the output ought to be appropriate to the input, or have an organic way of changing the subject if the input cannot be processed. And third, the output is designed a certain way that is perceived to be unique to humans: spelling errors, incomplete sentences, or awkward phrasing are signs of imperfect language uses by natural speakers. This means, counterintuitively, that in order to perfect anthropomorphic chatbots to be most convincing, they need to learn to make mistakes akin to human errors.

This is the reason why we choose to speak of "convincing" artificial speakers rather than "realistic" ones, as the latter suggests a certain depiction of a generalized reality of human speakers which simply is not available to us. Instead, the term "convincing" as the marker for anthropomorphism is used to recognize the social protocols and expectations ingrained in the identification of certain speakers as discourse participants.

5.1.3 The Politics of Imitating Human Beings

Before we can turn toward the problematic specifics of creating machines that "speak like us," we ought to reflect that this "us" is not a cohesive block of human agents and a determinate set of shared cultural features. This way of speaking about AI—presupposing a monolithic "human" side and an artificial one—is all too common both in philosophy of AI as well as in popular science.[3] This distinction presupposes that the anthropology of human beings is the place from which we can draw distinctions to any form of artificial intelligence. Approaching AI like this, suggesting that the developments of AI are distinct from human social circumstances, represents a categorical mistake. AI is, at this stage and for the foreseeable future, a social technology that will pose anthropological questions at a later stage of its development, if at all. Without considering the contexts and biases that are at work in AI development, these analyses and predictions about the impact AI will have on society are misinformed.

Donna Haraway is one of the first authors to elaborate on this point in her "Cyborg Manifesto" (Haraway 1985), in which she draws a roadmap to develop a cyborg that is not merely representing and perpetuating these structural inequalities. With her focus on the discursive ramifications of patriarchy and the fact that "grammar is politics by other means," she suggests that for the next step in human development we ought to overcome the many dualisms, including the construct of gender. Her idea of a cyborg then is not recreating gender-realities, but overcoming them in search of a shared, feminist language, and storytelling devices.

Haraway's approach, even if not taken as the next step of human development toward a feminist post-humanism, but as the first step of the development of communicative AI, is a useful warning that any recreation of human communicative features is bound to a certain perspective. Recreating a human being will always be accompanied by the way the creators view the person they are creating, including unconscious biases—including gender, ethnicity, body shape, beauty standards, age, and other features. Thereby, anthropomorphism in AI is either an inherently political thesis and project or it is a naïve approach to human nature.

The inherently political implications of AI, especially speaking AI, has motivated a variety of approaches to emerge that focus on the systemic conditions of artificial intelligence (Adam 1998; Wajcman 2009).

This debate of AI engineers creating "neutral artificial speakers" is comparable to speakers of a certain language, say English, claiming to have no dialect. With many different countries and regions speaking the language, many different dialects have emerged. Asking which region is the one that speaks "without a dialect" is to ask which region by default speaks the artificially standardized phonology of high English. In fact, no English speaker is speaking without a dialect, as the standardized phonology of high English is a dialect itself. It is simply the ruling dialect that is associated with certain hierarchical structures.

Claiming to create anthropomorphic artificial speakers, then, is of a similar quality: even if they seem to be the "most human computer" (Christian 2011), they bring a contextualized perspective, someone's limited interpretation of what it means to behave like a specific human being in a certain historical and socio-cultural context. These limitations will return in our discussion about the relatability of gendered artificial conversational agents at a later point.

5.1.4 Causing Harm—Privacy, Deception, Imbalance of Power

While the politics of imitating human beings is taking a holistic macro-perspective on the development of speaking machines, there are some more specific user-related issues that may emerge from the research goal of anthropomorphism in conversational agents. First, there are the obvious issues that require regulatory action. Those issues are concerns for privacy, exploitable deception, and an imbalance of power.

5.1.4.1 Deception

Anthropomorphism is used as a template to create artificial speakers that increase user engagement and decrease concern users may have with interacting with new technology. However, one could interpret the use of human-like features in technology is mere deception, as we are cognitively ill-equipped to differentiate AI that is modeled purely after our own image (Nyholm 2020, 27). The argument against anthropomorphism in technology design is that it is a deceptive approach to gain user trust and is thereby impermissible. The deception of artificial speakers imitating humans in their specific humanness, through thinking noises and spelling errors, leaches on to the trust human speakers invest in a conversation. This trust is based on the assumption that human speakers have a limited set of resources, specific mental and social features, and that they are generally relating to use similarly as we relate to them. Speaking with a human being, then, comes with certain expectations.

The deception here is that human beings relate to machines not "as if" they are humans, but assuming that they are human. Humans relate to their pets "as if" they are capable of understanding and empathy on the level of human beings. However, the suspension of disbelief, that pets are less complex and autonomous than they appear, is a voluntary one. Accordingly, the disappointment of relating to pets "as if" they understood our feelings when they show that they are not, thereby, is of a different type of harm.

An anthropomorphic artificial speaker, then, should be considered problematic on the mere grounds of deceiving human speakers by pretending to be human. The pain caused by disappointed trust in conversational ground rules can become a severe issue if digital communication is populated with machines simulating specific speech patterns. However, in order to build a case against anthropomorphism, there are other additional consequential issues to consider.

5.1.4.2 Privacy

The concern about privacy through misjudgment of one's conversation partner is a well-established issue. Through the context-creation of talking to a human being, human users may become more gullible and willing to share information they can trust with another human being who understands that some shared information is mere drapery for a pleasant conversation. A neighbor dropping the latest achievements of their daughter at college while discussing the garbage pick cycle does not intend this information to be stored and brought up at some other instance in their life by some other speaker. The lack of AI literacy, i.e., the knowledge and awareness of what artificial intelligent systems are capable of, is a risk for the privacy of unaware users who start chatting with artificial speakers. Small talk consistently reveals more information than participating interlocutors are aware of since small talk is conceptually structured and intended not to mean much (in opposite to "meaningful conversation"). These privacy concerns are a specific dimension of exploiting trust in conversation, as conversational customs often require to share some private information. The name of one's daughter, her age, the name of the college she goes to and her expected graduation year may be mere symbolic information in human–human conversation, but an artificial conversational agent with practically unlimited storage and analysis capacity may be able to locate the daughter and gather information on her as well.

5.1.4.3 Imbalance of Power

The main issue relating to a machine as if it was a human being is that the relationship, even if fully aware, is never going to be one of balanced powers. First, an algorithm, usually connected to a much bigger data stream, has entirely different access to information and information sharing than a human being ever has. And while we can grant that gossiping is a trained and established skill of many people, a secret trusted with a chatbot is never a secret, it is information given to the company that creates those machines. The fact that an artificial speaker is using slang and can crack jokes does not equate with "approachability."

The imbalance of power, thereby, is partially caused by the imbalance of storage ability.

Moreover, even if such an artificial speaker was offline to only operate with one user (a rather unlikely scenario given the increasing connectedness of even less important devices, see “internet of things”), the data generation and recovery skills of said speaker are unmatched. A robot does not forget. At the same time, a robot can forget if we tell them to forget. That, in turn, undermines a vital part of human–human relationships, the lack of control over the other person’s mind. We can hope that someone forgets about something, or that the information never comes up again—but the ability to either very precisely tell an artificial speaker what to keep or the total absence of this control is a unique difference between humans and machines.

The intentions with which chatbots are being used in the digital sphere, e.g., for customer service interactions, are generally morally neutral, as they aim to lower the costs for companies to process customer complaints. However, as Grice (1975) made clear, the consensus in conversations is a certain transparency of the conversation partners, and users have a claim to have their well-established epistemic assumptions about communication preserved. This situation is more comparable to having a third party listen to or taping a conversation without the interlocutor’s knowledge. Even if a conversation does not reveal any personal information, basic rules of conversation include the transparency of all people listening in and to what degree. The violation of such conversational rules constitutes a violation of trust, which is the source for the harm caused when talking to chatbots when mistakenly thinking one is talking to a human being.

This imbalance-argument has been made in different discussions about the possibility of human–machine relationships. John Danaher claims that those issues can be ameliorated, however, by programming robots in specific ways (Danaher 2019b, 11). Yet, many other authors remain skeptical (Elder 2017; Nyholm 2020). They usually conclude that such an imbalance is a reason why the attribution of human–human friendships to human–machine relationships should be considered impossible. Not because the machine will always lack certain necessary features for entering a friendship (this seems to be the standard argument), but rather because it is much more capable in storing, retrieving, and analyzing data than humans are. These capacities necessarily pre-structure any human–machine friendship with an imbalance of machine memory supremacy.

Here, anthropomorphism might provide a different outlook, depending on how thoroughly anthropomorphic artificial speakers are constructed: we could expect that some artificial speakers are programmed to misremember or forget facts, or to question some of those facts presented by human speakers even though they could easily be verified online.

However, it remains unlikely that such a thorough and sincere form of anthropomorphism will prevail, as pointed out in Sect. 4.5. The economic incentives to retain and utilize memory supremacy are too strong to expect that a company would willingly delete data off their chatbot so that they are more relatable to human speakers.

Thereby, anthropomorphism is a double-edged sword: Either an artificial speaker is simulating human behavior by being able to misremember and remain ignorant about certain facts, amplifying the issues of anthropomorphism, or it keeps all the computational supremacies, causing severe imbalances in any human–machine relationship.

5.1.4.4 Embarrassment and Other Forms of Harm

This harm caused by anthropomorphism in conversational AI is not limited to be deception and exploitable trust, which have been issues within society before any artificial speaker was operating. Scams, impersonation, taping the conversation without the other person's consent, or even having the other person on speakerphone are as old as the medium of telecommunication itself. However, the embarrassment and other types of unsettlement of being mistaken about talking to a robot are a fundamentally new kind of being mistaken about relationships. The social dynamic applied and projected onto a human-like artificial speaker generates expectations, however small, that will be disappointed eventually, is usually accompanied with a certain amount of trust and familiarity. Disappointing those expectations will needlessly cause disorientation, embarrassment, and possibly the impression of epistemic uncertainty in one's own conversational assumptions. Trying to make a joke in order to bridge an awkward moment of silence, investing in politeness and empathy toward the assumed human conversation partner—they are all misguided under the assumption of talking to a feeling being.

Realizing that those conversational efforts were mistaken when figuring out that one is talking to a robot can cause frustration and embarrassment, and possible disincline people to invest in the efforts in similar conversational circumstances, regardless whether there is an artificial speaker or a human at work.

Even more apparent is this problem if we switch the roles and are not mistaken about talking to a human when, in fact, we are talking to a robot, but the other way round. Someone who thinks they are talking to a robot may behave very differently than someone who thinks they are talking to another human being. Different conversational rules are presumed and projected when expecting an unfeeling and disinterested computer to be part of the conversation, and the disappointment of those projections may cause some embarrassment.

Ultimately, the argument that embarrassment and disorientation can be avoided by adding more anthropomorphic features is self-defeating. The more elaborate the approach to cover the tracks of an artificial speaker are, the more deceptive is the effort altogether. This ties into the argument from the beginning of this chapter: In trying to avoid the harming effects of having their conversational agent exposed as such, engineers are aware of the risks anthropomorphic robots pose to the standard user. Nevertheless, instead of trying to avoid having one's robot mistaken for a human in the first place, trying to cover the tracks is doubling down on the deception.

5.1.4.5 Questions of Responsibility

One way of defending anthropomorphism is the approach of shifting responsibility. So far, the debate focused on the institutional responsibility of companies constructing those artificial conversational agents and how they influence the conversational rules. The counter-argument would then rest on shifting the responsibility by claiming that those conversational rules are not necessary or exceptionally reasonable but merely cultural artifacts that can be changed if the conditions of conversations change. Moreover, conversational agents, in this argument, constitute such a change in conditions that may require adjusted conversational rules as well. Thereby, with artificial speakers entering the conversational sphere, our conversational rules become invalid or in need of revision.

However, this argument assumes that the approach of companies to create anthropomorphic speaker is relevant to how conversational rules form when it is not. If human beings have to question whether or not they talk to other human beings, the epistemic requirement for every agent is too much of a burden. Imagine the consequence if the default would be for the user to figure out whether they are talking to a human being, especially considering the progress made in chatbot-technology. The epistemic assumptions of talking to what appears to be another human being are deeply ingrained in our conversational customs partially as a requirement of streamlined cooperative actions. Without reliable assumptions about a conversational common ground, every conversation would have to start by establishing the humanness of each conversation participant and the rules they follow and are assuming others to follow as well.

The most sophisticated publicly accessible chatbot to date, Mitsuku (Worswick 2020), can fool people into believing that they are talking to a human being to the degree that many people will not notice the deception in a short small talk instance. Thereby, it is not the user talking with other entities online who has to make sure their epistemic assumptions are appropriate; instead, it is the responsibility of companies building chatbots to not violate its customer's epistemic assumptions by providing transparency about the application and sophistication of their chatbot-technology.

5.1.4.6 Ignorance

However, there might be users who do not care whether they are talking to robots or human beings, as long as their pragmatic goal is achieved with which they conduct conversations. In this view, anthropomorphism is a chance to add another entity to the social-relational network without adopting new rules of conversing—the artificial speaker simply ought to learn the given rules.

It seems that the laziness and ignorance of users toward their own potential deception and harm in favor of keeping conversational rules the same is a significant factor for people to adopt personal assistants and other voice-guided devices. The more natural conversations with those devices work within our communicative habits, the more often they are adopted within a household. Similarly, the anthropomorphic personal assistant may even hold an advantage over the highly stylized and protocolized human–human interactions like in customer service situations.

Actual human speakers ought to refer to a strict protocol of phrasing, which may be more infuriating to the customer than helpful due to its mechanic and disinterested impression. On the one hand, this protocol is necessary to keep the conversation solution-focused, on the other hand, it is intended to keep the emotions on both sides calm or, at least, not invigorate them further. A customer service bot, however, due to its lack of emotional bias and unlimited patience, can speak more freely with customers and switch protocols so a customer may feel "heard" or "listened to" without possibly becoming personally involved.

The feeling of being "heard" seems to be a key in many human–human relationships, no matter how formal they are. An artificial speaker can easily simulate the pragmatic ramifications of "hearing someone" by expressing understanding. Nevertheless, imitating those markers of understanding is not a sufficient condition to identify an artificial speaker as "anthropomorphic," as this behavior itself is a cultural technique to gain trust.

5.1.4.7 Unalienable Rights

The question regarding anthropomorphism in speaking machines, however, is whether one should be allowed to be ignorant or lazy about one's deception. Some of those points above against anthropomorphism may be ignored if we apply a strictly utilitarian perspective: if we do not care whether we are talking with a robot or a human, we cannot be embarrassed when we eventually find out. However, some of the issues associated with the imbalance of power and privacy concerns are unalienable. The fact that robots will be able to collect data and process them at the same time while talking to human beings as if they were one of them constitutes a potential risk that users cannot opt-out. According to the Charter of Fundamental Rights of the European Union (CFR-EU 2009), privacy, even willingly, cannot be waived, even if individuals hope to take advantage of some promised benefit for giving up their privacy. However, an anthropomorphic robot poses a threat to structural privacy, not the individual, as the deception-moment will compel users to share information than they would if aware with whom they are sharing on a broad scale. Further, the very move of deceiving users will remain, which should count as impermissible due to a high risk of damage from the illusion of balanced conversation.

In the end, claiming ignorance or indifference toward the quality and ubiquity of artificial speaker is non-optional, and, as argued above, arguing for preserving anthropomorphic features of robots holds only limited practical advantages while promoting several severely problematic disadvantages.

Two examples help to illustrate the points made above with technology that is available today:

> First, Google's Duplex made headlines in 2017 when their personal assistant called a hairdresser to book an appointment. The hairdresser was unaware she was talking to a robot, which was due to Duplex's highly elaborate performance of imitating a human caller. This imitation included common interjections like thinking noises and mid-sentence affirmations like "yeah" or "right." It was capable of navigating different appointment-dates and reacted without delay when confronted with an issue. The presentation was so impressive that many questioned for the first time whether they had previously unknowingly talked to an artificial speaker. (Leviathan and Matias 2018)

The second example is Steve Worswick, the creator of Mitsuku. Worswick complained about the limitations of creating human-like chatbots. Mitsuku, for example, can recite Pi with several hundred digits after the comma, thereby giving away its non-humanness, as no human agent could recite Pi that fast and without error. Worswick thereby included a deliberately dumbed down answer by Mitsuku to maintain the illusion of humanness for Loebner prize style contests (Worswick 2019).

5.1.5 Legal Consequences for Anthropomorphism

The first steps to avoid the exploitation of human's willingness to trust other humans, in opposite to machines, have been taken. There has been legislation on several levels of government around the world that require chatbots to identify themselves as such to avoid the issues stated above. These rules are motivated both to protect customers in their interactions with customer services, but also to protect internet users in general from being subject to harassment, misinformation, or some other form of robot-aided scams. Several different legislatures have implemented national strategies to confront the growing risk of misuse of advanced technology, like a planned law in Germany from 2018, that states that posts by chatbots on social media platforms have to be marked as such (Ludwig 2018). Further, even regional strategies have been implemented, like California's "BOT bill" ("Bolstering Online Transparency") to outlaw chatbots as a means of advertising (SB 1001, 2019). Additional national and international general AI ethics frameworks cover some of the use of anthropomorphic artificial speakers. However, the regulative agenda only has begun to take shape in these issues.

5.1.6 Shaping the Industry Through Legislation

Those regulations are usually not intended to shape either the industry's standards in creating artificial speakers or the population's expectation of what interactive natural-language processing AI could be. Instead, the current state of AI regulation is a process of catching up with the developments of technological progress and prevent its misuse in some particularly damaging ways.

The impact legislation could have on the industry and expectations of the public is critical in this debate that many countries are still grappling with. The first AI ethics guidelines from the European Union and other institutions lay out the groundwork for how the industry could standardize conventions, and for how the general public can work on forming coherent expectations about the potentially most disruptive social technology since domestication. Without certain legal requirements for content-specific utterances, like a ban on insults, the field of what artificial conversational agents should do is left to the devices of AI ethics and market demands. Whether it is desirable to have substantial legal restrictions on the artificial speakers's speech is questionable, as those restrictions can easily be misused to suppress other, legitimate forms of speech.

5.1.7 Conclusion

Anthropomorphism seems like a natural choice when creating artificial intelligent conversation partners. One intuitive way, initiated by Alan Turing to assess a machine's intelligence, is to test whether it can behave convincingly like a human being.

However, human behavior is not only determined by intelligence. It is often muddied by cultural and moral customs, individual quirks, mistakes, and other life-world-related features of everyday interactions. If the goal remains to create an artificial speaker that is *convincingly* talking like a human, then it is required to take over features that are not associated with intelligence.

By keeping this goal, engineers started including cultural markers like politeness and other interactive customs, without noticing that the underlying assumption had shifted: the goal is primarily not to create an intelligent speaker, but to create a speaker that is perceived as human.

This shift was a turn toward naked anthropomorphism, as the recreation of specific human speech patterns is not necessary to prove Turing's challenge.

The consequences of this turn are severe. Conversational agents like this gain the trust humans are willing to invest in other humans without having the chance to assess those investments. This deception itself is problematic because it violates some basic communicative rules that cannot reasonably be expected to be reexamined by every speaker every time they talk online. Additionally, it makes users in the digital sphere vulnerable to privacy issues like identity theft and data grabbing, and ultimately plain embarrassment at talking with wrong assumptions.

As this has become a structural issue requiring legislation, both the force and the limits of anthropomorphism have become clear. Its force consists in the willingness of some users to interact with artificial speakers like personal assistants pretending they are human beings, due to the transferability of communicative customs and rules. However, this does not suffice to outweigh the structural risk those bots pose. The limits of the anthropomorphic approach show here: the lack of alternative of how to construct natural-language processing algorithms that do not pretend to be all too human has, so far, minimal philosophical options. Or differently put: we only have humans to emulate.

5.2 Philosophical Implications of (Non-)anthropomorphism

As stated in the chapter before, anthropomorphism has been a self-evident program for the creation of natural-language processing algorithms. Initially inspired by Turing's challenge to create human-like intelligence, the ramification of this research and development program has turned to a potentially exploitable lack of preparedness with human speakers.

Thereby, the question of whether there are better ways of understanding and creating artificial speakers ought to be asked. An answer to this question, however, has more significant ramifications than merely changing technology to avoid inevitable undesirable consequences. With the projection that those machines will become more and more advanced and ubiquitous, rejecting the one blueprint we have to create artificial speakers, a new way to create those robots is key. As we are creating agents that can interact with us on a previously unfamiliar level of intellectual capacity, the philosophical ramifications of how we want to construct them ought to be carefully examined.

5.2.1 Relating to Non-human Entities

In the previous chapter, we discussed the ways we relate to non-human entities like animals (through taming and domestication), and how those relationships are fundamentally different to human–human relationships but should still count as "social relationships." And while it is clear that human relationships with animals are of a different kind than the relationships we may build with artificial intelligence, some of the differences may be helpful to point out by first exploring the limits of humans relating to natural entities, and then exploring the ways we can relate to artificial entities.

5.2.2 The Limits of Relating to Natural Entities

We can argue that comparing the way we relate to animals does not translate well to determine a way of how to deal with artificial intelligence. That is for two main reasons: First, artificial intelligence is created by human beings themselves specifically to relate to, while all the other "Others" are natural occurrences. This fact is not in itself a reason to reject the ways we are relating to the natural other. However, in building an intelligence that is not grown by evolutionary forces but designed by specific previously set purposes in an already artificial setting, we cannot expect the reactions of an interactive AI to be comparable to any already encountered intelligence. Most of AI algorithms are, in their current form, inherently cloud-based. That means their learning-progress is depending on the interconnection of AI agents collecting data to be shared within the learning algorithm (feedback-loops). A shared central intelligent algorithm working with data produced all over the world gives it a fundamentally different kind of intelligence than the individual-based intelligence of the natural world.

Now, against this point, one could argue that genetics and certain intuitive, instinctive behaviors are some forms of "cloud-based" intelligence. Through generations of learning and sorting out the unfit, natural selection has created a reservoir of pre-programmed intuitive behavior that can be thought of as a natural cloud of information. Additionally, the specifics of the mental processes may not be as relevant as this argument suggests. A pragmatic social-relational approach will concentrate on the interactivity of a relational entity, not its specific mental construction.

Second, artificial intelligence is a product of intentional design, while even the most domesticized pet still has some natural constitution about it. We can create boundaries in the behavior of AI at any moment, while other natural, relatable entities retain a certain natural "freedom" that cannot be controlled. Thereby, it may be more difficult to sincerely relate to artificially intelligent agents, as their actions are, at least to some degree, guided.

This argument fails, however, too. First, as has been shown in Sect. 4.1, machine-learned AI only assigns probabilities to its evaluations and acts accordingly. That leaves its evaluations and choices based on those evaluations undetermined, and thereby leaves some uncertainty about its choices. How the correlations within the data are found and calculated remains unclear as well (hence the term of "blackboxes"), as the specifics of the neural network causing the evaluations are unexplainable. And second, most animals we relate to are also limited to artificial boundaries of human culture. Dogs and cats are often held inside our living quarters, as are horses and other farm animals. Thereby, relating to animals might be equally "insincere" as they are limited and accustomed to our rules and limits.

Thereby, we might find some parallels between relating to natural entities and artificial ones. However, both the natural-language interactivity and the cooperative nature of human–machine relationships may require additional inquiry.

5.2.3 The Other and the Artificial—A Short Warning

The concept of "the Other" is useful to expose some commonly held philosophical assumptions about theories of subject. As an opposing term to Leibniz' theory of monades, according to which human subjects are entities disconnected from each other, Husserl introduced the "other" as a reflection of the phenomenological fact that we perceive each other as subjects without having the epistemological equipment to ever know if "the others" are as ourselves. The other, then, denotes the principal embeddedness of the self in a social context with other selves.

However, the more relevant term for considerations of relating to others is used as a way to de-center certain entities by "othering" them

(Brons 2015). This is proposed by critical theorists who noticed how some majorities used methods of "othering" to declare certain groups of people deviant, outcast, or simply irrelevant. In the history of Western culture this has been most obvious in the othering of women, of people of color in the context of colonialist expansion, or in the othering of alternative sexual and gender expressions. These otherings are representative of a power structure in which the ruling identity declares itself the center of cultural and ethical concern while those deemed of lesser concern are othered (ibid.).

Due to the history and well-established mechanisms of othering, we can see moves have been put forward to others and reject artificial agents. From calls for enslavement (Bryson 2010) to rejection of debate, it is worth noting that any inquiry in the possibilities of human–machine relational space is happening in the context of othering. This is not only othering the robots, but also those in relationships with them. Thereby, when using the term "the Other," it is recommended to do so with the careful awareness that there are different uses of this term at play.

5.2.4 *Uncanny Others—Phenomenological Notes*

The "uncanny valley" (Mori 1970) is the name for the psychological fact that the more human-like robots or otherwise humanoid creations become, the bigger is their unsettling impression on us. We can argue that this fact provides an important philosophical lesson: sometimes the more similar things are to us, the more distant they seem. The creepiness of Sophia, the robot, the almost-person-like-robot, lies within its proximity to human behavior and looks without ever quite reaching them. The female-gendered appearance, voice, and mannerisms are not convincing in our previously established sense. Nobody would mistake Sophia for a human being, even though the robot is created with strong anthropomorphic design choices. And the uncanny valley names the eerie impression Sophia leaves behind: maybe as a good attempt, or a harbinger of even better attempts, to recreate human features.

And while the uncanny valley usually mainly applies through facial features and movements (Tinwell et al. 2011), something similar can now be attested for artificial speakers and their patterns of speech (Ciechanowski et al. 2019). Realizing that light-hearted small talk with some agent on the internet turns out to be a conversation with a chatbot may cause the same amount of eeriness as watching Sophia speak. The discourse about the relevance of the uncanny valley as limited to the embodied forms of artificial agents like robots shows the bias in the perception of AI: the fact that Sophia has a humanoid face with some facial expressions and other body parts like arms apparently are more impressive to people approaching Sophia than her conversational skills, even though a skilled artificial speaker may leave a bigger impression on their human conversation partners than Sophia could.

The reason for the uncanny impression of artificial intelligent entities is, then, that conversational rules and presuppositions are almost as applicable to these entities as they are to human speakers. Their appearance, both physically embodied or through text- and voice-based interactions, is close enough to human likeness to project those conversational, social, and other behavioral expectations while knowing that the interacting entity is, in fact, not human but artificial.

Uncanniness emerges when realizing that this drive to relate to this almost-human is misplaced, as our anthropomorphic projections will fail, i.e., a cognitive mismatch between our conversational presuppositions and our knowledge of the conversational other. Less human-like robots, like the cleaning-bot Roomba, are not falling into the uncanny valley because the relational space of human–Roomba relationships is limited and clearly not to be mistaken with a human–human relationship. There have been anecdotes of people relating to their Roomba as if it was a pet-like entity, with "feeding" it dirt to clean up, or by cheering its pathfinding memory. However, there is no eerie feeling toward these relational projections, as the Roomba is not imitating living relational entities.

The emergence of the "uncanny other," then, is caused by the almost involuntary attempt to project human expectations on an almost-human, while still uncanny machine. In opposite, if a robot retains specific robot-like features, it can be properly perceived as such without getting an eerie or disorienting feeling. Many robots in science-fiction movies represent openly robotic features to avoid the uncanny valley by continually reminding the viewer of their robot-ness, both in appearance and in mannerisms, even though any engineer would avoid those robot-typical features for the sake of efficiency or usability.

This uncanniness of quasi-humanoid robots is not in itself a normative argument for or against specific designs since being unsettled by robots could be considered normatively neutral. It does, however, give credence to the thesis that anthropomorphism's appeal in creating artificial intelligent machines has been a misunderstanding. Working toward recreating or imitating humans should not be the goal of creating artificially intelligent agents, due to a laborious crossing of the uncanny valley.

Similar applies to an uncanny valley between robots and some animals. Companies like Boston Dynamics are creating animal-like robots that can navigate through unfamiliar, uneven terrain, like forests. Something is unsettling about their movements, due to the animal-like organic style quadrupeds, or in some cases even bipeds. This unsettlement could be seen as the uncanny valley between expectations of the behavior of animals and the imitation of such behavior by robots.

Lastly, the uncanny valley could be understood as a warning signal against some human–machine relationships. The instinct of being unsettled by machines that are too close but not quite in our image might serve as an initial move to reject such an entity with which we otherwise might be establishing relationships. The unsettling moment might explain the often emotional rejection of any advanced human–machine relationship: the uncanny valley might be a hard psychological barrier for people not to cross, thereby keeping their anthropomorphic projections limited to those entities that are, in fact, not close to human likeness. We might want to call this kind of rejection of advanced human–machine relationships based on the uncanny valley the "preference for naïve projection," as a Roomba seems like an easy object to project onto, while a machine wading into the uncanny valley blurs the line between projecting certain mental states and describing machines in hypotheticals, and acknowledging that machines may be ascribed those descriptors not only hypothetically.

5.2.5 *The Artificial Other—An Instance of Objective Spirit-Conversations?*

When G.W.F. Hegel coined the term of "objective spirit," he placed the term between his idea of a subjective spirit, that is, in very general terms, the mind of every subject, and the absolute spirit, representing his idea of the history-moving spirit of the world (Blasche 1995, 722f). The objective spirit represents institutions that are created by society, i.e., a collection of individuals, through a "will" ("the free will that seeks the free will," Hegel 1964, §27) but is out of reach for said individuals to change on their own or in their own life, thereby giving them the impression of being confronted with something of an "objective" matter. The law, morality, states and governance, and other institutions are basically impossible for one individual to change in a relevant way, thereby putting it up to a similar force of everybody's life as laws of physics or biology. Another term for "objective spirit" would be "culture," even though "objective spirit" functions in a bigger context of Hegel's systematic philosophy (Blasche 1995, 723) and thereby carries more nuances of meaning than a simple translation would presuppose. However, without buying into Hegel's systematic philosophy, using the term "objective spirit" instead of "culture" allows for a more inclusive approach of all things human-made, as the term "culture" also come with certain limiting associations.

5.2.5.1 Big Data and Objective Spirit

The interactions of humans with AI will be pre-structured and limited by certain aspects of the objective spirit, like legal ramifications, moral norms, and cultural assumptions—very much like interactions between humans and other humans. Human–human interactions, however, have the additional dimension of those being interactions between two subjective spirits that can connect. We can assume that in this distinction between subjective and objective spirit, AI would remain firmly on the side of the objective spirit. Considering how current AI is trained to use NLP to converse, interacting with conversational artificial agents could be considered communications limited to what the objective spirit provides.

The artificial Other, the name for the social category in which we relate to artificial conversational agents, might be somewhat presumptive, as the term "other" presupposes a singular perspective, while an amalgamation of available data to train artificial speakers may not count as such, but rather as a remix of cultural patterns.

Allow us to use an analogy here: We imagine the objective spirit, i.e., the contemporary culture and conditions of civilization in which culture happens, as a lake in which different organisms, like plants, animals, microorganisms, exist. Different connections between those entities, plus outside effects, constitute the ecological system of the lake. If we want to determine what is going on in the sea, we may go fishing by taking a chunk of organisms out at a particular place at a particular time. Analyzing only the contents of the nets can tell us something about the quality and quantity of fish and other organisms in the lake. That is not to say that the fishing haul will allow for precise projections about the overall population of creatures in the lake, but we may get enough data to know enough to generalize over the population and their locations and relations.

Every data set represents only a small fraction of how human beings communicate, what kind of words they use, and how they present themselves online in opposite to their full personality (Zook et al. 2004). The inference from the data someone produces through their digital activities to someone's individual personality is a fallacy suggesting that people and their personalities can be reduced to an ultimately indifferent data pattern recognition system.

Always fishing in the wrong spot or at the wrong time may cause one to believe the lake to be of a very different quality than it possibly is. Analogously, data sets are decontextualized from their sources and sociological context in which they have been produced. However, since those data sets are new sources of analysis, and people have begun declaring the time of theories over that acknowledge the always limited availability of evidence requiring potentially falsifiable generalizations. Instead, a simple analysis of all the available data is supposed to expose correlations and causal relations by simply providing data on "everything that happens." ("In the future, we won't need theories. We have data." For a discussion of this thesis, see Mazzocchi 2015). However, as this approach appears misguided on several counts, we can expect those "data-based misjudgments" of individual situations to increase.

Furthermore, similar to a fishing haul impossibly representing the quality, quantity, and richness of the sea below, no single raw data set will be able to represent an unbiased set of facts. Attempts to balance out a potential bias by composing data sets exposes the circular argumentation at play here: In order to balance out a perceived bias, this bias needs to be acknowledged as such. A bias, being an often unintentionally skewed representation of a given set of facts, presupposes the availability of knowledge of said set of facts which the bias is skewing. Yet, data sets are promised to be the very set of facts that require efforts to rid them of bias.

The objective spirit encapsulated in data, then, would also represent the same kind of bias that is prevalent in the communications of the majority of those in the data set—or possibly even create its own (Kempt 2019, 118). No person can perceive the objective spirit objectively, and the issue with algorithms is that those data sets, by being data sets, are often believed to be an objective representation of how society "really works."

Thereby, an artificial speaker that is powered by those data sets could only convincingly represent a certain qualified kind of objective spirit. It is not a complete reconstruction of the culture at the time, but rather a condensed version that may amplify biases either by over pronouncing or omitting certain features of the current culture. Research in the uneven distribution of privileges that influence the perception of possible representations of the objective spirit double down this observation: coming from an oppressed minority, “culture” will appear vastly different in both its promises and its constraints to those of the generally privileged majority. Thereby, Hegel’s talk of objective spirit already may be presumptive about the common ground of people from different standings within this culture. The possibly skewed representation of the objective spirit in artificial speakers does not require a subjective “perceiving” self, but rather some data sets and an algorithm that is capable of detecting and replicating patterns available in the data.

5.2.5.2 Conceptual Consequences

Understanding conversational agents like this would also explain the reservations some AI theorists and philosophers have when anthropomorphizing AI behavior or other human’s relationships with AI. Artificial speakers, lacking the subjective spirit which, according to Hegel, represents the perceiving self, are lacking what in this view should be considered an essential part of any meaningful relationship. That is because only subjective spirits can be in relationships—subjects are “part of the sea,” to further the analogy from above. Subjects perceive the objective spirit as the given civilization and its culture. However, although the objective spirit conditions both their perceptive categories and behavior, they relate to it fundamentally different than to conversational agents. We cannot have a relationship with culture as a whole; yet, we can relate to such a conversational agent representing this culture even without assuming a perceptive self in the agent.

Instead, relating to artificial conversational agents is like relating to a mere representation of culture, and thereby closer to a para-social relationship (thus no social relationship). However, anthropomorphizing those agents further, either through metaphoric speech or actually designing them to exhibit human features, constitutes the deception pointed out earlier. This approach has a natural appeal to it and mirrors certain ways of viewing other relations as well. The fact that we can relate to a dog more than to a worm is based on the idea that dogs at least participate somewhat in a subjective spirit. The perceptive self in a dog is very much limited but certainly more plausible to assume than in a worm.

However, interpreting AI, especially natural language using algorithms like chatbots, as instances of the objective spirit has two main issues: one with the previously presented basis of social relationships, and the other with the original idea of what the objective spirit can be. First, in relating to others, we defined a relationship as a consequential one. Additionally, chatbots and other communicative AI certainly are consequential, which would suggest that there are specific, meaningful relationships possible. Investing a theoretical model of what AI is or is not, and then apply it to human beings and their capacity to build relationships with them, was precisely the approach that we rejected in the beginning. Thereby, the fact that AI may merely represent an instance of the objective spirit is not a sufficient argument against a relational approach. People can, in fact, relate to speaking machines in a way they perceive as meaningful, even when fully aware that they are not relating to a subject.

Second, it is questionable whether the objective spirit can be understood like this. It is true that a mere reference to the system of "morality" or "aesthetics" appears rather superficial to have any significance for our lives, and Hegel does not want to say that. In his conception, the objective spirit merely represents everything relating to "culture," which shapes our perception of the world. As pointed out above, however, the idea of a monolithic perception of all things culture seems to ignore the variety of perspectives produced by the unequal and unjust societies (an instance of the objective spirit in their own right).

5.2.5.3 Artificial Conversational Agents as Subjectless Spirits

On the contrary, the turn to Hegel's conception of spirits allows for a reconstruction of a subjectless entity. If the objective spirit is understood as cultural occurrences that an individual perceives as "objectively" given, but humans merely construct, then the objective spirit can be operationalized and condensed (Gransche 2019). With the analogy from above, we can identify the progress made in the data-turn of AI: through relying on massive data sets, the relevance of single perspectives is reduced to a degree that has been impossible before. Alternatively, in quasi-Hegel terminology: the objective spirit can be represented without requiring a subjective spirit to access it. It can be represented without a specific perspective, even though, as pointed out, bias may still remain.

Symbolic AI chatbots relied on singular people's work to hard-code individual responses in a conversation, while in the latest publication regarding Google's Meena-chatbot, the engineers put forward the so-called "SSA" (Sensibleness and Specificity Average) parameter, with which they did not hard-code specific responses, but merely evaluated the responses Meena put out in a conversation (Adiwardana et al. 2020, 2). Thereby, Meena's "subjectivity" is better described as subjectless recombination of operationalized and condensed objective spirit input that human agents interpret as a subject due to their relational propensities.

The way chatbots interact with us shapes the way we expect to interact with communicative AI in the future, and thereby establish a new dimension of the objective spirit as part of personalized interactions being perpetuated through transferring those customs on robots as well (Gransche 2019). The example of Amazon's Alexa introducing a mode for children having to address Alexa with "please" is perpetuating a certain moral standard. Children growing up with the "strict" Alexa will perceive those rules as given, and thereby as a part of the objective spirit (BBC 2018).

One last objection should be discussed here, and that is that artificial speakers, more like subjects, are fairly unpredictable and possibly can state the opposite of what they are intended to say on occasion, especially in the current method of training them with neural networks. Thereby, they should not count as a representation of the objective spirit, but rather as an imitation of the subjective spirit. This objection has some merit, even though it only applies for a tiny fraction of chatbots. Most current chatbots and other artificial speakers are being trained with specially filtered and assembled training data, concentrating on specific problem-solving applications. A chatbot that is equipped to answer legal questions of a certain legal framework, then, can count as a representation of the legal system, hence incorporating the objective spirit. Due to the lack of other areas of expertise that this chatbot has, it will not count as an imitation of the subjective spirit.

In comparison, a human paralegal may answer the same questions in the same way but still constitutes a subject, since they are not limited to this kind of topic. The pragmatic estimation of the possible range of topics someone can talk about is what lets us conclude the presence of a "self," a subjective spirit. However, over the last years, the progress made in NLP programming has created artificial speakers that are capable of covering any kind of conversational topic. Those are called "open-domain chatbots," and include chatbots like Mitsuku and Meena.

5.2.5.4 Conclusion—Objective Spirit

Generally, it remains somewhat unclear on how the concept of the objective spirit and the increasing social reality of artificial social agents can connect. On the one hand, it is undeniable that natural language processing algorithms are fed by what could count as "objective spirit" according to Hegel: Their machine learning is uncovering human-made patterns that human beings might not even be aware of. And while we still teach them certain ways of interactive norms like politeness, those are not informed by personal preference imitating an individual's opinion but are carefully crafted as what is being perceived and agreed upon as a standard of the time. Thereby, it is a representation and codification of the objective spirit.

On the other hand, this AI is not purely representative. It does not have autonomy, but it does have unpredictability. And while data sets can be prepared to avoid some extreme misbehaviors like flat-out insults, it is still quite possible that an artificial speaker may say something entirely uncalled for, as insulting sentences are not limited to using slurs. It is thereby behaving closer to a subject without being one, posing the conflict Hegel could not have seen: is the objective spirit codifiable in a subjective-spirit-like entity? It seems that without going too deep into Hegel's political ontology, the concept of "objective spirit" reaches its limits here. However, it does seem worthwhile to keep in mind how AI incorporates its culture. Both as inherently connected to it through the implemented norms and rules and part of the cultural impression the "objective spirit" is thought to have on us, as well as a subject-like entity that is interacting with its cultural surroundings, providing the base with which we can relate to it.

5.3 Patiency and Pragmacentrism

In his 2012 book "The Machine Question," David Gunkel introduces a systematic approach to explore moral patiency for machines (Gunkel 2012). Moral patiency is a term describing the moral worth of an entity without being a moral agent on their own (Floridi and Sanders 2004, 1). I.e., if some object has moral patiency, an action affecting this entity can be judged morally based on the consequences it has on the entity. In many different approaches to ethics, especially in discourse ethics, however, the role and properties of a moral agent are paramount in determining the "right thing to do," as those who participate in moral discourses, i.e., moral agents, are making the rules. Rawls' veil of ignorance (Rawls 1971), for example, under which moral *agents* are determining the rules of a society in which everyone can agree to live, presupposes that only the agents get to decide those rules. At the same time, it remains unclear how those agents should treat autonomous entities that cannot negotiate. In order for moral patiency to have a conceptual space in contractualist ethics, moral agents would have to agree to limit their freedom to assign moral patiency to objects in virtue of the objects' features.

Moral patiency is a viable way to recognize the moral standing or worthiness of consideration of entities that are not agents, and relational approaches to the social like agent-network theory, Gunkel's or Coeckelbergh's (Coeckelbergh 2010, 2012) offer resources to incorporate non-agents in the moral consideration. Those approaches will feature in Chapter 6, as they pertain to the robot rights debate.

Some discourse ethicists have proposed to understand moral patiency via a dependency to moral agents. Gethmann (1998, 2002) calls it the "tutoring approach," where competent, moral agents (i.e., humans) in discourse situations are required to take the chaperone-position for an entity that does not have a voice in the discourse but ought to have some discursive representation. Developed mainly in response to speciesism accusations of Peter Singer, Gethmann develops an approach of discourse participant that is not decided by species, but by competency and performance (Gethmann 1998, 136). He compares this approach to the way adults represent their children in the children's interests, which are not (yet) capable of ascribing full agency to themselves. Many theories of agency present a property-based approach to personhood from which agency is derived. With Gethmann's move to determine agency not via description of certain features, however, but by the potential ability of agency self-ascription (i.e., the competency of identifying oneself as "I"), the location of agency has shifted from anthropomorphism to a "pragmacentrism." (Gethmann 2002) This shift moves the connection to moral patiency from discrete properties of personhood to pragmatic conditions of discourse participation. The ability to claim agency opens the door to participate in discourse, and the abilities to follow the pragmatic rules of discourses are determining factors for moral agency.

This approach requires a pre-established relationship between agents and those entities that ought to be tutored. In the case of children, pets, and the dead, this has been a long-established practice of moral patiency. Some arguments in environmental ethics claim that "the environment" as an entity ought to be protected due to its inherent aesthetical value (e.g., Brady 2006). According to arguments of this kind, the naturalness of the environment is supposed to be a cherishable aesthetic feature, deserving moral patiency. Some forms of this argument lean into an extended agent-network theory, but also demonstrates the applicability of the tutoring-relation of agents and patients.

However, leaving those hard cases aside, the emerging question is one of the tutoring-relation between humans and machines, and whether we can reconstruct those as agent-patient relationships. For this, the pre-established relationships ought to be understood as valid ones, as it is up to agents to decide which non-agent entities ought to be considered worthy of moral consideration. We can apply the previous elaborations on how human–machine relationships ought to be understood. This explanation fits well with our intuition that if something is considered valuable but cannot assert its moral worth in discourse, moral agents, who can ought to assert the worthiness of moral consideration.

The simple fact that strong emotional bonds are emerging between pets and their owners suffices to consider pets as worthy of some moral consideration in virtue of their relevance to their owners and the general relevance of pets within the social network. Stealing someone's pets can be cause for severe emotional harm and is thereby often considered not only theft but also emotional assault. It makes sense, then, to even legally codify pets as more than merely the property of their owner, but as an emotional companion that, when taken away, can devastate the owner. A similar argument presents itself with artificial speakers: eventually, human–machine relationships will be sufficiently strong, with a considerable amount of emotional capital invested, that taking away or turning off an artificial speaker will cause some severe mental distress in a person. The quality of the relatability of artificial speakers due to their use of natural language will create bonds that justify an ascription of moral patiency.

With a pragmacentrist approach, the eventuality of some machines claiming agency in the future can easily be incorporated in the participation of moral discourse. However, whether one remains skeptical about future artificial moral agents or not, this approach allows for a recognition of moral patients as already worthy of protection due to the relevance of the relationships to humans.

For any moral patient to be recognized by other agents, certain relational spaces have to be established. With influential voices like Joanna

Bryson and Noel Sharkey strongly advocating against recognizing robots as possible recipients of the status of moral patiency (Bryson 2019, Sharkey and Sharkey 2010) and the dismissal of human–machine relationships altogether, the more critical step at this stage is not arguing for moral patiency, but meaningful human–machine relationships. The relational space that allows for those meaningful relationships, then, is a prerequisite for moral patiency.

5.3.1 An Empirical Challenge to Moral Patiency

Much is owed to this approach when attempting to capture autonomous technology as relatable entities. As seen before, however, the use of "artificial intelligence" is philosophically woefully insufficient due to its lack of descriptiveness. There are, so the premise of this book, many different ways of relating to a growing range of autonomous technologies. Gunkel does not seem to make this point as thoroughly as it may be required for relational approaches: Gunkel restricts his proposal to mere general terms, refusing to go into technological detail that may or may not come to practice. Yet, any idea of how we can relate to an artificial other is predicated on knowing what this "other" may consist of. However, with only some predictability in technological progress and especially in the future ubiquity of specific design standards, it seems challenging to present a philosophical approach to technology that is blind to specific technological developments.

Current technology defies our intuitions because our intuitions are based on and informed by science fiction, current customs and norms of technology-usage and its prowess, and certain technological promises that may or may not come true. Science fiction provides us a projection surface that may spur public debate while suggesting technological futures that may be impossible. Often enough, the developments sold as "technological progress" are not actual progressions, but a mix of progression and lowered expectations of the power and applicability of a previously promised future technology. A recent example is the timeline of ubiquitous self-driving cars: After an initial burst of enthusiasm, first expectations are being recalibrated by reducing the speed of innovation and a piecemeal admittance of overpromising (Mims 2018).

The most relevant intuition-source about relating to any future technology is our familiarity with the current available one.[4] With natural-language using autonomous chatbots on the rise, it seems unlikely that any previously established customs, expectations, and norms still apply. Genuinely new technological applications that change our lives in ways like never before often require time to build up intuitions. Thereby, it is far from certain how the community of moral agents will receive the moral patient "machine" in their midst.

Thereby, opening the relational space between humans and machines by providing useful familiar tools can help shape our expectations and intuitions about the possibilities of relating to machines, which, in turn, may help provide ways of how machines are constructed in the first place.

5.4 Relating to the Artificial

In the following, a new way of understanding human–machine relationships will be introduced. First, the shared parameters need to be recalled: Human–human relationships cannot be the sole influence and model with which we relate to (human-like) machines, as the rejection of anthropomorphism has shown. At the same time, these theoretical parameters prove the categorical desiderate with which we can describe emerging forms of human–machine communications and relations. Thereby, an approach on this topic requires to present parameters of human–machine communication that allows for a genuinely new description of those communicative relationships, and that reflects and forms our intuitions about those relationships. The way relationships are framed, as we argued, fundamentally influences how those relationships are being perceived and ultimately accepted.

Consider the idea of "romantic relationships." With few exceptions in the history of Western civilization, marriage was not considered a place of romantic love. Mostly due to the suppression and rightlessness of women, romantic relationships were considered unachievable within those lifelong bonds. Not since the "romantic" era in the early 1800s have "romantic love relationships" been the norm (Harf and Weiß 2009). While today, the importance of the romantic partner is often described as metaphysically predestined ("soulmates"), or otherwise "objectively" given, thereby changing the social descriptors and the meaning of their relationship.

With the rejection of anthropomorphism, the concept of a relationship between humans and machines ought to be considered fundamentally different from human–human relationships, but also fundamentally different from pets. The pet analogy is only helping to understand what it means to open social descriptors to new entities that have not been accounted for before, similar to the way we will eventually describe aliens if we ever establish a relationship with some of them.

Similar can be thought of AI right now. We are, in fact, able to communicate in a way that is responsive to our input, that is not necessarily guided or determined, and the ever-growing set of data used to determine the AI's performance will allow for a wide variety of responses.

These relationships are social because of their underlying social dynamic and developing rules and customs. Moreover, while we reject anthropomorphism, this does not lead us to the conclusion that for categorizing social human–machine relationships, we have to start from scratch.

5.4.1 Problematic Approaches

In the following chapter, we elaborate upon the question of how relationship-building works. However, there are many ways of how people relate to each other and equally many ways of possible relationships. Determining which substantial features are not the way to build relationships can help to determine those that are.

One way to organize our relationships with any possible natural language using artificial speakers is to deny that there is a relation in the first place. This position relies on a particular notion of "relationship" or the action of "relating to," which may be presupposing certain features in the relating agents that can plausibly be denied to artificial speakers.

5.4.1.1 Mental States

Here is one prima facie plausible position one can take when conceptualizing "relations": Only entities with mental states (i.e., mental representations) can relate to another, while other entities without mental states are objects. This view would include human–human relationships, as well as some relationships with animals. In human–human relationships, knowing that someone else has similar states of mind is an important relational factor: If someone is laughing at our jokes, we assume they find our jokes funny. A romantic relationship only reaches its full potential if both feel the same way about each other. The philosophical approach of understanding "sympathy" (Hume 2007) as emotionally or mentally relating to others captures this process reasonably well. In the Christian philosophical tradition, this concept is referred to as "compassion" (Roberts 2016). Both mean the functional idea of replication of other's states of mind in oneself, in part as a theory of mind, and in some other as a justification of moral actions.

Consequently, human–animal relationships work like this as well, even though to a lower degree of depth and significance. A dog being "excited" about seeing their owner return, a stray cat walking toward a person willing to pet it, and even some reptiles seeking the company of their owner all seem to suggest a certain "relatability" with them. Even as vapid as an encounter with a deer in the woods can count as a relational moment. We relate to an animal-like this by "reading" their intentions (Nyholm [2020] pronounces the relevance of "mind-reading" as an relational condition), and plausibly assume similar mental processes happening for which the deer simply has no words: assessing risks of a situation given the experience with previous encounters, comparing the threat to threats of other kinds, and preparing to flee if the assessment reaches a certain threshold.

So or similar goes a plausible story about the inner workings of non-human, highly evolved animals. We are ascribing many of our mental features to those animals, like the skill of assessing a threat, of having intentions, and planning a certain path of action to realize purposes or fulfill intentions. Once we cannot reasonably ascribe those mental states due to a lack of interpretable behavior or the neural infrastructure required for mental representations, those relations are abandoned. A jellyfish, for example, cannot be reasonably ascribed intentions but seems to be avoiding certain stimuli while seeking others. The terms "intention" and "acting" become merely anthropomorphic projections or metaphors to make their behavior comprehensible with our terminology. We deploy an interpretational view onto their behavior.

The puzzle epistemologists in AI see themselves confronted with appears to be of a similar kind: when is a neural network sophisticated and advanced enough that we can ascribe it mental states? The assumption being that the construction of an artificial infrastructure will somehow lead to an increased mental process that deserves the name "mental states." However, coming from the process we just described with a deer and a jellyfish, the neural infrastructure is only half the story: the primary focus for those ascriptions are pragmatic, by interpreting certain behavior and identifying them with similar actions or behaviors of human beings.

The argument of how we can relate through mental states is thereby twofold: First, a specific anthropomorphic interpretation of the behavior is introduced: the deer looks around because it smells something or because it is concerned, or so. Second, this interpreted behavior is explained in a similar way human behavior is explained: through recourse to individual mental states and other neural infrastructure.

Then, the argument goes, a modus tollens will explain why we cannot relate to robots: If the second premise is denied by claiming that robots do not have the required mental states, then we cannot reasonably interpret robot behavior the way we interpret the behaviors of highly complex animals. Similar, then, goes the argument for not being able to relate to jellyfish, while being in turn able to relate to a deer: the difference in mental capacity and neural infrastructure does not allow for an anthropomorphic interpretation of their behavior (at least not in an explanatory sense).

Defenders to the thesis that robots are relatable like complex animals have two strategies here: either they can show that the neural infrastructure of robots, i.e., the neural network with which they are trained, do reach complexities with which their behavior can reasonably be interpreted in the same way as highly evolved animal or even human behavior, i.e., as actions. Or, they reject the relevance of mental states for social relations altogether. In the following, we discuss three reasons why the latter is justified. The former seems less of a desirable path to go down, considering that this requires the explication of some significant underlying assumptions about the theories of mind and agency, without touching upon some more pragmatic arguments. Thereby, even if everyone could agree on the same theories of mind and action, pragmatic arguments against this view will remain (a similar argumentation can be found with Gunkel [2019]).

First, a theory about social relations requiring mental states is overdemanding. There are well-elaborated epistemological issues when identifying other people's mental states (in fact, phenomenological theories state that we do not have access to those altogether), and the prime source is other people's reports about their own mental states. Even in the most intimate relationships, like romantic ones, the knowledge whether both parties are equally in love, relies on interpretations of behavior, norm-adequate actions and responses, and the reiteration of self-reports about those states of minds. These all may amount to quasi-practical certainty that someone else is having the state of mind they claim to have. However, many people simply do not require these states of mind to relate. Many social relationships are strictly performative without requiring any specific state of mind. Respect, for example, can be reconstructed as entirely performative without recurring to the state of mind of "respecting someone." If the respecting person enacts certain social protocols toward the respected, the latter will not require further proof that the respecting person is, in fact, in the mental state of respect. Many of those relationships are performative because they are social statements of mutual reassurance, and not expressive because the mental states of some people are so overwhelmingly present that they have to express them.

Second, if people still relate to robots in social ways, as they seem to do, then this approach has little to no room to justify these relations. Ultimately, if we claim to relate to other beings because of their presumed mental states, everyone who does not care for those mental states—whether or not the relational object can have mental states—has to be mistaken. Their perspective and the subjective benefit of relating socially to others, even robots, often outweighs the fact whether there are mental states. As we stated in Sect. 3.3, the use theory of social relationships allows for constructing any relationship as long as the pragmatic circumstances are fulfilled.

The importance of many social relationships lies in the pragmatic benefit of cooperating with others. Such a pragmatic view does not claim that social relationships are primarily entered because of some egoistic motives. Many forms of relationships are conceptually based on the fact that both parties have an interest in each other's well-being. However, the question here is if mental states are a necessary condition for any relatability. With the performativity-requirement fulfilled and a subjective benefit, it is safe to assume that many people will not care for the presence of specific mental states. Thereby, instead of a necessary condition, the assumption about someone's mental states appear to be merely a sufficient reason to relate to someone. However, even if robots do not have mental states we can relate to, they still provide subjective benefit to some.

Third, assuming mental states to be the sole ground for relating to others is an essentialist view, as it designates the quality of social relationships on unchangeable grounds of the available mental states. Judging "meaningful" social relationships based on the quality of available mental states alone still requires some pragmatic cutoffs and models of mental representation, thereby relying on anti-essentialist arguments.

The reason why people begin to recognize the relatability of great apes like orangutans is due to the increased knowledge about their abilities and the suggestion that their mental states may be more complex than previously thought. However, with the emerging knowledge about the abilities of animals, the question when and with whom these relations are possible gains relevance. One cannot reasonably reject one species based on their presumed limited mental capacities and, at the same time, accept that some relations are possible with another species. The examples of deer and jellyfish are deliberately chosen to show the differences in capacities in the animal kingdom that motivates such an approach. However, what about octopi, chickens, or lizards? Forming reliable theories about a variety of mental states of these animals is not only difficult. Their relatability is ultimately not determined by the available evidence of mental states, but rather by the interactivity and the "fun" people can have with those animals by interpreting their behavior in an anthropomorphic but consistent matter.

Case in point, most people do not require specific knowledge about the capacities of certain animals in order to relate to them. If it were the case, most people would make a difference between koalas, who have minimal cognitive abilities due to their "smooth brains" (Lee and Carrick 1989), and other types of relatable animals. Other features, like interactivity, friendliness toward humans, or the ability to "look into our eyes" or "having a face" as a way of constituting its otherness (Sartre 1993, 340f; Gunkel 2018, 171), appear more relevant.

Ultimately, when it comes to the relatability of robots to humans and everything that follows from there, the mental capacity or neural infrastructure can be deemed irrelevant. While it may be true that for some human–human relationships, the presence of individual mental states is deemed necessary, that is not the case for many other human–human relationships, that are purely performative, or human–non-human relationships. Without the requirement of mental states, however, building social relationships with robots is not ruled out based on some metaphysical assumptions about natural minds vs. artificial ones.

5.4.1.2 Gender

As stated before, the role of most social descriptors is to demarcate certain relational spaces with which people know how to relate to them. Gendering robots by giving them gender-typical names, voices, and normed behavior, for example, is not making them more relatable in a human–machine relationship but is instead a tool to create a certain familiar relational space for users. If a robot fulfills specific social categories like fitting certain expectations about gender expressions, humans will relate to them more intuitively as this technology is not challenging them to something they are unfamiliar with.

Gender especially is used as a fundamental relational feature. The recreation of gender-typical behavior, however, serves mainly to perpetuate many gender stereotypes. As the previously mentioned work by Haraway (1985) states, the way AI is being designed will always be contextual, and only creations attempting to surpass the context of gender-typical behavior will avoid the perpetuation of the oppressive social context of patriarchy. However, without knowing whether people are interacting with a man or a woman, many remain uncomfortable. This is due to the familiarity of gender as a social descriptor, as pointed out in the previous chapter, and the associated expectations of behavior.

Next to the structural arguments against gendered robots, there are some more user-specific issues to be pointed out as well. Returning to human-pet relationships, e.g., allows for a re-assessment of the relevance of gender in AI. The fact whether one's dog is male or female rarely matters to their owners (expect for veterinarian issues) while they still manage to establish strong emotional bonds with the animal. Thereby, "familiarity" with gender only applies to human–human relationships (if at all), suggesting that for human–machine relationships this social descriptor ought to be considered less relevant.

While we can grant that for many people, gender is a relevant feature in social relationships with other humans, it seems undesirable to reproduce features of gender in AI. Three main reasons play a role here: first, gender is often a projection surface for all kinds of expectations, repressing women in general, and any person that does not fit in in those rather strict norms of gender-expression. A gendered robot will, for better or worse, be perceived with those projections and thereby reinforce the biases associated with them. (UNESCO 2019) The UNESCO-report on gender bias in AI production finds that especially the serving and obedient nature of those assistants will reinforce gender stereotypes, as the personal assistants in today's smartphones come with a typically female voice as the default setting. Additionally, it propagates a hard binary between genders, which long has been criticized as marginalizing people not identifying along this binary.

Second, engineers may be guided by those assumptions as well. In trying to create a "female" or "male" chatbot, for example, those assumptions are already included. The decisions by an overwhelmingly male engineering team to give personal assistants ever so well-behaved female voices is not a coincidence. Even the most advanced chatbots to date, Mitsuku and Google's Meena, are understood as "women" in the sense that names and some answers and, in Mitsuku's case, the avatar are fitting the gender-expression of a woman. Further, these issues might not even be unaware biases but market-strategy, by exploiting the biases in the general population about the role of women in society.

Third, recreating gender (stereotypes) in AI must lead to an undesirable outcome in which the (digital) society is inhabited by a variety of gendered robots, possibly reinforcing the worst gender stereotypes out there (see also the following chapter on sex robots). Considering AI not as an economic enterprise but as a social technique and challenge, creating gendered AI seems wholly unnecessary. It will create more issues in the long run as expectations about AI explicitly being assigned gender is being grown with users.

As one last argument, changing one detail about creating gendered robots will make an even more precise point: Imagine the question is not whether gender should be included in the design process, but race. The arguments in favor of doing such a thing are structurally very similar: many people still care about the race of the person they are socially interacting with. And by recreating AI agents with certain features associated with certain races and ethnic minorities, the relatability of those AI agents will increase.

Obviously, this is an absurd idea. Since robots are not humans, assigning them a race is not only silly anthropomorphism but also inadequate and dangerous as it allows for the projection of racist stereotypes. Rightfully, nobody would consider creating a "racially convincing" robot. The question then is, how could anyone defend a gendered robot if the arguments for such gendering (its accessibility, market-value, relatability) are equally applicable to a race-bot?

The only viable way out of these issues is to reject the idea that AI requires gender at all. A first gender-neutral personal assistant has been developed, named Q, that does not exhibit female features (Mortada 2019). These robots are generally indistinguishable from other personal assistants in their functionality but do not provide the gender-clues that other personal assistants have. The worry that those personal assistants are lacking accessibility and thereby will not attract many users seems misplaced, as a reference to typical irrelevance of the gender of pets will show.

Rejecting the idea that robots should be developed with gender does not imply that those robots ought to be conversationally uninspired or romantically unrelatable. One can even imagine a flirtatious personal assistant that does not have a specifically gendered voice and, when asked, denies identifying with any gender, as an artificial speaker does not require one. While this does not prohibit misogynists from projecting their assumptions about women onto this robot, it allows engineers to avoid projecting their own stereotypes onto their product.

5.4.1.3 Disembodied Sex Robots

In a book on the supremacy of natural language processing over embodiment for the quality and depth of human–machine relationships, the topic of sex robots, i.e., machines designed to serve the purposes of sexual relief for their human users, seems odd. Sex robots are a premiere instance of a purpose in which the physical, embodied presence of a robot outweighs the conversational capacities in relevance for the user. This is why the literature on sex robots has mainly focusing on embodied robots.

However, there are two reasons why a discussion of those machines is still relevant to the project pursued here. First, even embodied sex robots will improve on their conversational abilities, suggesting that sex robots will soon also be able to hold conversations. This improvement is due to the explicit goal of sex robots to be as convincing as possible, including the simulation of certain (stereotypical) gendered roles.

Second, there are (or certainly will be) purely digital sexbots. Similar to sex hotlines, artificial speakers may be programmed to hold sexually charged conversations. And while these programs may be compared to pornography rather than sex robots, their interactive format and reliance on the sexual preferences of their user may subject them to similar arguments.

The controversies surrounding sex robots are far from settled due to several open empirical questions on both sides of the debate, and certainly will not be solved here. Some arguments for allowing and promoting the use of sex robots rely on the empirical evidence that sexual healing and relief is in fact achievable with realistic sex robots. On the other hand, some of the feared risks of robots intended for sexual pleasure may not materialize either. For an overview assessing the main arguments exchanged in this debate, see the consultation report on “Our Sexual Future with Robots” by the Center for Responsible Robotics (Sharkey et al. 2017). In this, the open questions are being discussed on the basis of current empirical evidence to provide a better understanding of both the issues of sex robots as well as its relevance for future social integration.

Differences in Arguments?

As stated above, sex robots are usually discussed in the context of physically available, embodied machines. With our focus on disembodied, communicative AI, some of the arguments proposed and discussed in this debate are not applicable, while others are even more pertinent. In the following, a few of the arguments are being discussed that seem applicable to the question how purely digital sex robots ought to be assessed. Some claims made in those arguments, like many other in the debate, are subject to empirical research.

The structure of the main argument of the defenders of sex robots states that robots produce a net-positive outcome for human users (McArthur 2017, 38f). The net-positive outcome of putting sex robots to work is aggregated through many of their features, covering different types of sexual depravation, and thereby parallelly reducing sexual crimes.

The main point seems to be that sex robots provide relief of sexual tension and suffering to the degree that less realistic bots could not. This point is only relevant to those with no access to voluntary sexual intercourse with their desired sex partners. Some may suffer from sexual seclusion due to consent-issues (like in cases of severe sexual disorders). Without breaking laws or moral norms, people with those severe disorders may never experience fulfilling sexual pleasure, and sex robots modeled to resemble their desired sexual partners could provide relief without harming humans. Others may suffer from chronic social anxiety, prohibiting sexual expression with other human beings from the fear of being judged or ridiculed.[5] Sex robots could provide relief here as well. Further, people who have trouble finding sexual partners due to their perceived physical undesirability (like disabilities or disfigurements) may find relief in having sex with a robot. These sufferings are substantial and can be cause for mental illnesses like depression, eating disorders, or body dysmorphia. (Di Nucci 2017, 80) Thereby, ameliorating the suffering from sexual rejection and depravation is morally required.

The therapeutic perspective on sex robots, i.e., the thesis that those robots can heal certain sexual depravation, is limited for its application on digital sexbots. Digital sexbots can simulate desire for a certain human being or sexual activity, causing the human user to feel desired and charmed. Thereby, a certain socializing effect could be expected for the chronically lonely or the sexually repressed. As long as the issues of sexual depravation lie with the self-perception and constitution of the user, those digital sexbots may function akin to sexual therapists by making users more comfortable in exploring their own sexuality.

However, this feeling both requires a temporary suspension of disbelief and is possibly insufficient in the long term regarding the achieved sexual pleasure, or when the issue lies with the object of desire. While convincing sex robots may come close enough to "the real thing," leaving their users satisfied, digital sexbots may never reach that level and, in turn, may even increase the sexual desire of those unable to fulfill these desires. And while this is a question to be answered in empirical research, it appears clear that we should not expect digital sexbots to be a full replacement for physical contact. This is not to say that artificial speakers cannot be used as a therapeutic means to overcome other social issues like loneliness or social anxiety.

This suggests that the debate around sex bots, both in embodied and in disembodied form, require a more differentiated debate about their uses and how a restricted access to certain devices can be used as a therapeutic means.

Sex robots are often criticized for replicating problematic sexual stereotypes, and recreating predominantly female stereotypes for a predominantly male clientele. This may lead to the commodification of sex, with the impression that sex with other people, like a sex robot, can be purchased. The consequence, so the argument from the Campaign against Sex Robots (2015), is the objectification and continued subjugation of women. These stereotypes of women are shaped from the deeply engrained roles of men and women in society, with women being presented as only sexually attractive when exhibiting certain features.

It is questionable and deserving of further inquiry whether the gendered aspect of artificial speakers with sexual content is any more damaging and repeating of these stereotypes than a physical presence of a sex robot (Danaher et al. 2017). This may be the case considering the findings of female-gendered personal assistants being perceived as more subservient (UNESCO 2019). However, the question of whether arguments like the one of "symbolic consequences" (Danaher 2017) are relevant here remains unsolved, as the symbolism of those actions are limited in its performance.

The argument by Danaher focuses on the physical performance of the actions, while in the case of a digital sexbot, those actions would only be imagined and verbalized, but not physically performed. This difference seems to be of psychological relevance, as violent video games and other interactive media have not proven to be conducive to a more violent lifestyle (Kühn et al. 2018), the construction of an artificial, humanoid speaker remains an ethically problematic enterprise if the primary purpose is for its abuse.

Relating to Digital Sex Robots

The main concern of this book is the relationships people can and will build with conversational AI. From the perspective of the sex robot debate, a purely digital sexbot seems to require a simulation of the similar stereotypes. The main conclusion about digital sexbots, i.e., disembodied, voice- or text-based artificial speakers with the capacity to entertain sexual scenarios, is a similar one.

However, the main argument of critics of those robots lies in the harmful reiteration of stereotypes of mostly women. The assumption here is that the only descriptors available for robots will be those of already established female stereotypes. They acknowledge that those human–machine relationships are becoming so sophisticated, the application of descriptors of human–human relationships appears adequate entering those relationships. Some start developing feelings of love for their sex robot (Nyholm and Frank 2017; Scheutz 2012), and some of those robots are specifically designed to trigger more than simple sexual responses but are connected to entire socially conditioned relationships and relationships of power. If the attribution of human–human relationship descriptors is used to describe human–machine relationships, then the devaluation of the former appears as a danger to be taken seriously.

Most sex robots are assumed to cater to a certain anthropomorphic standard in which the ever more sophisticated imitation of human beings is the ultimate engineering goal. As seen in the discussion about the politics of imitating human beings, however, these engineering goals require contextualization. It seems at least thinkable that sex robots would not imitate and reiterate harmful stereotypes born in oppressive power structures, but present genuinely new sexual outlets, in forms of impersonal sex robots. If that were the case, then the main argument of sex robot critics would be weakened. However, without a physical source of sexual pleasure, the digital sexbot is relying entirely on the sexual scenarios introduced by the human user, thereby offering little to de-gender sexual technologies.

The issue remain whether anthropomorphism is a sustainable way to move forward in creating relatable sexual artificial agents. If those agents are merely created to resemble human beings, the issue of sex robots is a dire one, mostly because of the still pervasive oppressive patriarchal structures in which those sex robots would be engineered. If, however, sex robots are created by taking human–machine relationships, and their fundamental differences to human–human relationships, seriously, then the debate would shape up differently.

Obviously, creating sex robots that intentionally do not resemble humans will weaken the appeal of those robots severely. Especially in the area of disembodied sex robots, such an alternative to anthropomorphism is unlikely to be found. Without the physical sexual stimuli associated with a sex robot in its physical form, the only thing that is left to cause sexual attraction is the projections of the human user. Without certain gendered clues, however, the appeal of sex robots can be expected to be close to zero.

Especially with often specific sexual preferences, anthropomorphism is a default approach to development. As a measure of therapeutic devices, some robots may be developed that both produce the net positive without reiterating harmful stereotypes, leaving the possibility of an ethical sex robot intact.

However, what we can show with this debate is that anthropomorphism is, in fact, an engineering choice and thereby can be subject to change. Additionally, while some areas of robot engineering, like sex robots, rely on anthropomorphic design choices to fulfill their primary purpose, others do not. For the areas of social life in which robots will become substantial relational partners, we can recommend exploring the conceptual space available to construct social categories that allow for descriptions of human–machine relationships that do not rely on human–human relationships.

5.5 A Second Domestication

5.5.1 Taking Stock

At this point in the inquiry, a few things have been argued that deserve a reflection and summary. The method of this book allows making analytical recommendations based on the results of our inquiry. If, then, the inquiry shows the limits of our established terminology, we are justified in making certain recommendations on how those limits can be surpassed. We argued that social categories are open to change through technology and techniques, and are in constant flux depending on a society's state of development.

With animals taking up roles in society and establishing relationships that are pragmatically and emotionally meaningful, a precedent is set that different kinds of embedded social relationships are possible. This precedent leads to a rejection of anthropomorphism and to a pragmatic, anti-essentialist perspective of social relationships. As we have argued, this does not lead to arbitrary forms of relationships, as para-social relationships are still fundamentally different from social ones, even in a pragmatic sense. However, this allows for recognizing human–machine relationships are social relationships.

Other relational approaches to human–machine interactions have shown that there is a philosophical basis for recognizing robots in our social fabric but are missing two key requirements that ought not to be forgotten: first, a robust rejection of anthropomorphism is required. The more machines imitate human behavior, the more people are forced to choose between human–machine relationships, either being quasi-human–human relationships or deceptive imitations of some trusted instance of human–human relationships.

Second, the technology of AI requires some differentiation. Toy pets like Aibo are of a different kind of "other" than humanoid care robots, and sex robots are of a different kind of relatability than unembodied artificial speakers. Thereby, it seems unlikely that there will be a useful all-encompassing relational theory of AI, as it is unlikely that there will be a useful all-encompassing definition of AI. Many different AI applications will allow for different relationships. Since the creation of those applications is up to us, the decision which one to program ought to be subject to public scrutiny. One can compare this to a debate about which animal to domesticize if all animals were available. Some will prefer those that are useful for manual labor, and some will tend toward those that provide company and comfort.

The applications of interest here are the ones that use natural language to communicate with us on near-human levels, because of the central relevance of language for our self-understanding, the depth of human–human communication, and the categories of human cognition.

5.5.2 Another Social Expansion

The main conclusion, then, consists in reconstructing social categories in a way that allows for a spot of those machines in our social fabric. The analogy to domestication is motivated by the realization that current development of conversational AI is unguided and has lost touch with some guiding principles. Most progress is made in recreating human speech patterns. This progress has provoked striking legislative action aimed at suppressing chatbots and their use instead of proactively guiding their development.

The idea, then, is to give way for a new category of social interactions and adding entities to our social fabric as has been done before with pets: The artificial. Like with the idea of domestication of animals, the "second domestication" follows a structure of taming and domestication.

Taming AI will involve understanding its patterns first while domesticating is specifically forming it along those patterns to fit our needs. Roughly, we are still very much in the stage of understanding AI and its patterns. Since its patterns are depending on our own, taming AI is a chance to understand human social speech as much as it is to understand AI. The way different data sets are affecting the probabilities of AI to maintain certain propositions or to answer in certain kinds of ways can help us understand how human beings with a limited diet of politicized information will react to realities.

Taming AI will include setting out normative guidelines for what the limits of a society are to tolerate AI behavior. Tamed AI still carries the blind construction of AI in it, as the Twitterbot Tay represents not a tamed, but an untamed AI. Reacting to any provocative/maleficent purpose is, in this analogy, close to a wild, untamed animal than a tamed one. A tamed one, then, merely a contained version of AI, still very much blind and indifferent to human purposes.

Domesticized AI, in turn, can be used as a term for AI that not only on the rarest of occasions do things against our wishes (same with dogs who attack innocent people), but also otherwise serve a certain purpose. This purpose is not necessarily a mental state, but rather the methodology that has led it to detect the wildest spectrum of human purposes and "knows" how to incorporate those in its own behavior. To satisfy the label of "domesticized AI," we can assume that we do not have to have a general AI, as others purport it. However, the current way of constructing AI, with training data sets that contain more data and will lead to different results than any human could ever thoughtfully and meaningfully review. Thereby, it seems, taming and domesticating AI that is not indifferent toward human interests is more challenging to create. However, the apparent dangers of an AI winter will not necessarily affect the progress possible for chatbots and other artificial speakers, as the threshold for people to relate to those speaker lies fairly low.

5.6 From Social Descriptors to Social Agents

The last step in this overarching argument that robots with sufficient skill may be considered part of our social fabric is to explain the move from social descriptors to social agents. The main theories of agency conceptualize an action as referring to individual mental states like intentions or wishes. Moreover, while others have debated the questions about the theoretical ability of robots to have agency, the move proposed here is a different one, presuming a different concept of social agency.

We can argue here that this a consequence of how social agency is constituted: those who can justifiably be ascribed a certain social relationship with others can, at the same time, be assumed to have a particular sufficient type of social agency. We can, therefore, reconstruct social agents as the sum of their social descriptors, thereby allowing our previously stated justification for ascribing social descriptors to artificial intelligence.

The main idea here is that social relations, through the justified attribution of social descriptors, are constitutive of social agency. This pragmatic move turns away from the capacities of inner processes to create individual mental states and toward the collective recognition of agency depending on someone's behavior. One may call this approach social behaviorism, as it designates those who can act socially by identifying social behavior.

Once we get down to the specifics of why and how people relate to their pets (and often enough to other human beings), we find that the social descriptors used are often enough not depending on any psychological state from the other, but merely the interactions we have with those entities and the behavior we interpret. A cat coming up to us to snuggle is called “affectionate” without knowing specifically if it is not a way of getting treats, and a server at a restaurant is not necessarily exuded by our presence but may speculate that showing more-than-usual attention will result in a higher tip.

Given that those conditions for assigning descriptors to social behavior are fundamentally pragmatic, as it merely relates to the performance of the social protocols, then the assignments of those descriptors to other, artificial entities are not only possible but demanded by consistency.

These attributions of social agency require the acceptance that by principle social descriptors, social relationships, and social agents are not limited to biological, embodied entities, but can be expanded to unembodied, digital entities as long as they provide a certain level of interactivity.

5.6.1 Some Counterarguments

One argument against those ascriptions may be that the behavior of robots is merely programmed, and thereby merely a replication of human behavior. As a replication, it is merely a delivery system of what the programmers consider appropriate behavior, and thereby not to be assigned social descriptors on their own, rendering AI a mere derivative of social behavior.

This argument, however, is misleading, as it assumes an unfairly overestimated concept of “autonomy.” If this concept were applied to AI in general, autonomous cars would not be “self-driving,” as technically all moves a car can take would be programmed in by humans. It is almost trivial that autonomous machines, whether digital or physical, will behave according to human expectation and programming, as they are supposed to serve our needs.

Additionally, this argument may not even be accurate. The current issue with AI is that the decision trees, i.e., the pathways neural networks take to come to certain conclusions, are impossible to predict precisely, and the training data for algorithms kept secret, resulting in lacking transparency. However, this lack of understanding and transparency opens the space for spontaneous behavior that was neither intended nor foreseen, defeating the argument of merely replicating human intention. Those mistakes could be one way of relating to computers in a different way than we do to humans currently: computers never fail in calculating, but they may fail hard at understanding an otherwise pretty simple question due to the limitations of the problems they are trained to solve.

Another argument against this has previously been discussed above, which is that social agents require individual mental states to perform successful speech acts necessary for social interactions. This requirement seems to increase the threshold for artificial speakers to reach human levels of interaction by reintroducing the conditions of mental states for full human agency. It is true that for the speech act of lying to be successful, the liar ought to have the intention to deceit the person they are lying to. Otherwise, it counts as incomplete—it is merely a false statement, not a lie.

However, artificial social agents do not require to be on par with human agents to count as relatable social agents, as well as dogs do not have to be. As pointed out above, the relationships build between humans and machines will be pragmatically predicated on the interactivity and shared consequences of those relationships, not on the ontological status of the robot, the availability of their mental states, or the ascription of agency.

For example, for the speech act of assertion to be successful, the asserting part ought to have the conviction that the content of the assertion is correct. However, if the contextual premise is that a chatbot always delivers the information requested of it, then the requirement for a mental state of "being convinced" is mute. As long as the human conversation partner assumes that the chatbot is speaking the truth, then the chatbot's speech acts can be successful.

5.6.2 Social Agents

One of two thresholds need to be met in order to consider artificial speakers social agents: either their sophistication reaches levels in which a human user cannot tell the difference between human conversation partners and artificial speakers. This level of sophistication renders any questioning of mental states or any other non-pragmatic requirement mute. Or, the threshold is considered even lower and mainly affects the role those artificial social agents can inhabit in a more and more digital society.

In this chapter, we suggest concentrating on the latter. Concentrating on the possible advancements of conversation AI design to replicate human speech patterns to indistinguishable perfect levels only allows for the aforementioned binary arguments of "human" vs. "non-human" to consolidate, when in fact, a more differentiated look in the "non-human" category should be established.

This category of alternative social agents should not be strictly based on properties like skills. However, there might be some helpful orientations as to what speaking machines ought to be able to do to not count as imitating humans and yet not to be unapproachable. The following points are not at all systematic or complete by any means but are intended to provide an idea of conversational moves that are not purely anthropomorphic. That means, those moves of a language game are not limited to human agents but can be thought of as features of social agents qua being social agents.

For example, proving to understand our expressions, both explicit and implicit, and being capable of reacting to it appropriately are two crucial features of any conversational agent. The condition of "understanding" human expressions can remain purely functional here, as we previously have rejected the idea that a relatable artificial speaker requires mental states. The reaction to those expressions, however, seems more relevant and could touch upon culturally coded language. Constructing artificial speakers that use hyper-specific cultural language can count as an anthropomorphic move, as there is no reason for conversational AI to have a particular way of speaking,[6] and may perpetuate stereotypes about people of a certain cultural background. A mild personalization, i.e., creating an artificial speaker that uses similar vocabulary with the user, might be a solution here, as it suggests relatability without requiring cultural appropriation.

Speech acts like assertions, questions, and requests seem to be fundamental conversational moves of a language game. A communicative AI ought to be able to simulate those to a degree of plausibility. Additionally, recontextualizations (phrases like "Remember when…?") are a helpful rhetorical device to keep a conversation going and create bonding moments. Lastly, some polite customs in the use of language, like small talk, follow-up questions on some personal topics, and open-domain banter seem like key ingredients for people to spend time with someone else. For any social AI, those elements could count as relatability.

One main skill that some psychologists believe to be crucial for building deep and relatable relationships is the process of secret sharing (Liebermann and Shaw 2018; Slepian and Kirby 2018). The specific insights about how the process of sharing secrets is a balancing of power and demonstration of trust aside, the ability to receive and share secrets, and thereby allow for trust to grow, is a cornerstone of how humans bond. It does not seem unreasonable that artificial speakers will be able to keep a secret just as well, designated as a secret not to be shared, brought up again, or used against the user. It is entirely plausible to imagine artificial conversational agents of different kinds as what the German term of "Kummerkasten" refers to, i.e., a comment box designed for emotional complaints. Artificial speakers may be the best candidates to date for humans to deposit their deepest secrets, without having to fear judgment or rejection, but with interactivity that is not available with pets or when writing it down on paper.[7] There is even some evidence that children are trusting a robot with their secrets in a similar fashion to trusting an adult (Bethel et al. 2011).

Pure secret-keeping is not sufficient for a human–human relationship as there will be issues of judgment, trust, mistakes. However, this seems like a viable social category for human–machine friendships*.[8]

5.6.3 More Concerns

There is no doubt that a digital box with people's secrets is a privacy nightmare waiting to happen. Software is prone to mistakes and is hackable, possibly easily by the company that produces them. However, knowing that chatbots and other relatable AI agents will be trusted with some important secrets, this is less of an ethical issue but rather a challenge of engineering to create disconnected chatbots that do not save those secrets upon being told that this was a secret. People already store nude pictures, chats containing gossip, and other sensible secrets on their phone—the addition of a chatbot-protocol is only a gradual increase in risk, not a fundamental one.

Additionally, shared secrets are never safe, which presumably is a part of why we share them in the first place. Other humans can be extorted or otherwise forced to release secrets; diaries can be read. The issue with communicating secrets in one form or another is that people require an open ear. The lack of judgment coming from an artificial speaker is a great reason for people to share some of their more embarrassing secrets.

The non-judgmental nature of AI is also an explanation of why artificial speakers may receive high acceptance rates as psychotherapists (De Mello and de Souza 2019).

Some might interject here that those skills will only lead to people actually developing affections for certain communicative AI; however, the very point of this endeavor is to argue that those affections ought not to be considered misguided because they are directed at a non-human entity. Instead, they ought to be categorized as directed at artificial social agents, and thereby serve the purpose affections usually have within a subject. Artificial social agents can be a valid part of someone's social life, and human–machine relationships can be part of the composition of all social relationships.

5.6.4 *Missing the Mark*

Many debates have been started on the possibility of certain kinds of human–machine relationships. With the relational approach in place, some of those debates can be uncovered as centered around a flawed premise. In the following, one flawed debate is discussed in order to make the point that machines ought to count as their own kind of social category, but as a social category, nonetheless.

5.6.5 *Case Study of Subtle Essentialism: Friendship and Friendship**

As pointed out in Sect. 3.2.4, friendships are a large part of the social fabric and the debate about whether robots can be friends of ours is motivated by the assumption that humans want to make friends. Many philosophers have contributed to the debate about the conceptual ramifications of calling someone a friend. From Aristotle to Kant, different conditions, features, and properties of both "friendship" and "friends" have been proposed. We have rejected the essentialist idea of friendship being reduceable to a certain checklist of features that, once fulfilled, constitute a friendship. Even robot–human friendship optimists like John Danaher seemed to have partly ceded ground to this essentialist approach to friendship by buying into the conceptual structure of friendship being a social relationship of a certain quality.

If we keep the threshold for "friendship" low enough, as even Nyholm (2020, 149) acknowledges, then robot–human friendships are very much possible. The question seems to be, then, whether robots can become the highest form of friend humans have managed to construct. This normative structure of the debate, however, pre-determines the expectations by investing the anthropomorphism people claim to avoid.

We can reconstruct the debate around robot–human friendships in two ways: First, we can ask whether we should and can build robots that will be able to reach the highest form of friendship. Some affirm both positions (like Danaher) or at least partially (Darling 2017; Gunkel 2018), some warn about trying to create those robots because of relational issues that create high expectations and a "category boundary problem" (Coeckelbergh 2014, 63) or argue that those relationships are not possible because of certain mental projections that ought not to be projections (as Nyholm calls in reference to Peter Winch an "attitude towards a soul," Nyholm 2020, 156f).

Second, we could see this entire debate differently: Instead of asking if we can and should create robots that can be virtue friends, we could ask what kind of friendship we should want from them, considering that friendships will emerge no matter what. And this constructivist approach leads to very different suggestions and assessments of the current debate.

We can reject the debate about robot–human-virtue friendships as asking whether robots can enter a social relationship exclusively designed for humans (and, in its inception by Aristotle, exclusively for men). This, however, cements the aforementioned essentialism about friendship by suggesting that there are only a few specific types of friendships (and the highest version is the one to aspire). We can reject this conceptualization by referring to the constructivist approach of this project: instead of analyzing friendship to its very conditions, we may want to construct new conditions that apply to robot–human friendships that account for advantages of having to deal with a robot. A robot–human relationship could resemble more of an intimate relationship with a constant companion, or a personal learning environment that also can keep a secret or provide space to vent about some personal issues. Some may claim that those options are not and cannot be friendships. The conclusion from this claim could be that the concept itself is inapplicable. Simply put, human–robot friendships are simply no friendships at all, and calling them "friendships," and even trying to assess whether they can reach the highest levels of virtue friendship, is mistaken due to the long-held associations with friendships that cannot be ignored, but also not correctly applied.

Admittedly, abandoning a concept because of its historical analysis seems like giving in to some prejudices that will remain. If the concept of "friendship" could be engineered to include robots, this could allow for a reconstruction of human–robot relationships as friendships.

Something functionally similar seems to be Danaher's approach to point out that robots could take over outsourced position so people can seek more virtue friendships with other humans (Danaher 2019b, 18). It is hard to see how this would not fundamentally change the concept of "friendship" altogether, as it would certainly have consequences for the perception of human–human friendships.

However, at this stage of the philosophical debate about human–machine relationships, the main body of evidence and theory has been using "friendship" to define, evaluate, and recommend certain types of human–human relationships. Once we abandon anthropomorphism in machine-creation, this concept does not apply anymore. From an argumentative strategy consideration, it may be best then to not speak of human–robot friendships, but to acknowledge that those relationships of non-romantic, emotional, and social significance are not measurable on a human–human friendship scale.

At the same time, this does not dismiss any human–robot interaction but demonstrates the desideratum of a new understanding of social relationships. Nobody would claim that human-pet "friendships," while mutually beneficial, are not reaching the same levels of some idealized human–human friendships, but that "friendship" between humans and pets means something fundamentally different without taking them out of the social considerations. Same, then, with human–robot friendships that do not fit the mold of anthropocentric assumptions of social relationships.

5.7 A Second Domestication—Continued

Thinking of social relationships between humans and robots as mediated through domestication efforts could help create the conceptual space to recognize the fundamental difference in human–robot relationships. Domestications are guided, intentional social expansion with certain purposes to society. At the same time, domesticized entities are becoming viable members of the social, to different degrees and different extensions.

Communicative AI can be thought of as an artificial company, as it can create a stronger impact as it possesses the lone-standing feature of natural language processing. Other AI that does not possess communicative features, like a cleaning robot, may never be that important to humans but could be recognized as another form of human–robot interactions. Similar to the different (often culturally relative and ultimately arbitrary) relationships between humans and domesticized animals[9] resulting in different norms of treatment, different AI applications may lead to different relationships and thereby different norms treatments of technology. As little as the group of domesticized animals is coherent (Hirst 2019), as little should we expect the different major AI applications to be coherent in their role for society.

The development of the norms between different applications of AI ought to be self-evident, as different uses and designs will trigger different reactions of users that cannot be explained away by insisting that the robot in question is as unfeeling as an autonomous matching algorithm. Thereby, relating to robots is not guided by abstract ideas of specific AI capabilities. It is based on the interactivity and social appeal of specific AI applications. Communicative AI, in this regard, has a leg up on other applications, as its impact is, as described in Sect. 4.1.1, phenomenologically more relevant.

The domestication of communicative AI requires two steps, then. The first one is to realize that we need to recognize that current AI development is not leading toward a sustainable social AI due to the incentives of anthropomorphism and the lack of alternatives. Second, the domestication of AI as such an alternative will mean to incorporate AI agents under different norms of treatment, which are yet to be fully developed. Thereby, the rules under which certain types of AI agents are being domesticized (in the literal sense of the word, to make them "belong to our homes") will differ from instance to instance. We cannot reasonably expect to provide an all-encompassing theory of the artificial other. We can, however, work on rules on how to create AI agents that suit our needs without referring to anthropomorphism as the sole design-paradigm.

5.8 Conclusion

The main tools for describing relationships between humans and robots often rest on terminology and conceptual associations that are fundamentally anthropocentric. Those associations reinforce the assumption that human–machine relationships require, to improve, a more anthropomorphic machine, causing a myriad of issues, from power imbalances to deceit. Without an alternative, the engineering goal of communicative AI being as human–like as possible will not be changed.

Understanding the process of integrating communicative AI into the social fabric as a domestication-process showed that alternative categories are not only possible but have cultural-historic precedent.

Human-machine friendship or romances under the tacit premise of anthropomorphism, then, must fail, as they will never reach the level of sophistication most people require, with some authors moving the goalpost out of reach for robots to ever be considered "worthy" friends or partners. It is thereby a better way to understand human–machine relationships as fundamentally different kinds of relationships, comparable in principle to human–pet relationships. Considering the vastly different cultural treatments of several pets and domesticized animals, we can expect a difference in norms to emerge that will treat AI differently as well.

In recognizing that the composition of the "social" is continuously changing and does not have to include machines as fake-people but as communicating machines in their own right, we lift the requirement of anthropomorphism. Communicative AI, then, may go in different directions yet to be figured out. This issue will be addressed in the next chapter, as we turn to the social dimensions of human–machine relationships.

Notes

1. One may interject here that this could indeed be considered an intelligent move of a machine (or their engineers): It fulfills the goal of the test by hiding its deficits behind the deficits of the tester (see Sect. 4.6). However, the question is whether passing the test is of any useful information about the intelligence of the machine.
2. Google's Meena chatbot has been lauded to react to conversational situations in which it does not understand the context by trying to create its own context (Adiwardana et al. 2020).
3. Take Newman and Blanchard (2019) and Shadbolt and Hampson (2018) as overgeneralizations of human society to simply "humans" (Newman and Blanchard 2019), or a deliberate reduction of humans to "digital apes" (Shadbolt and Hampson 2018).
4. Or, to be more precise, the one we were familiar with when growing up, as Douglas Adams' bon mot summarizes: "I've come up with a set of rules that describe our reactions to technologies: (1) Anything that is in the world when you're born is normal and ordinary and is just a natural part of the way the world works. (2) Anything that's invented between when

you're fifteen and thirty-five is new and exciting and revolutionary and you can probably get a career in it. (3) Anything invented after you're thirty-five is against the natural order of things" (Adams 2002, 140).

5. This issue seems to attract many people to the idea of AI therapists, too.
6. One may, however, acknowledge that there is no cultural-free use of language. This idea is similar to people claiming that they do not speak with a dialect, while they are merely used to speaking the dominating dialect of the day.
7. There is extensive psychological research in the advantages of secret sharing.
8. To mark the difference in human-human friendships and those between humans and machines, we shall mark all social descriptors that carry human-human relationships connotations but are supposed to describe human-machine relationships with an asterisk (*).
9. One can think of the difference of domesticized animals that are considered food: while dogs and cats are usually not considered a possible food, goats and sheep usually are considered a food source in most cultures. An interesting middle case are horses, that in some cultures are eaten and in some not (but on both kept as domesticized animals, in opposite to pigs that, where not eaten, are not kept either).

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CHAPTER 6

Social Reverberations

This chapter explores several potential issues of adding artificial speakers to the social fabric by taking the social relationships between humans and those speakers seriously. First, the growing debate about robot rights is being introduced and discussed under the relational approach defended in this project. Second, the principle of human-centered design is being reflected upon to determine whether it is suited to face the challenges arising from human–machine relationships in which the machine may be deserving of some protection in its design process as well. Third, a social split between those who accept and acknowledge human–machine relationships and those who reject these new forms of social interactions is anticipated and outlined in its severity. The fundamental question of how robophobes and robophiles can move forward in incorporating AI agents in everyday life is being explored.

6.1 Robot Rights

The debate about robot rights has been going on for a few years now. There are several accounts to be taken into consideration for a discussion about robot rights, and all of them deserve specific analysis and inquiry. However, considering that in this project, an extensive approach has been developed about the reconstruction of human–robot relationships, it seems more worthwhile to approach this debate from its core

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claims. Additionally, due to the constant influx of technological achievements, the discourse about robot rights is far from settled in forming out "positions" that can be attributed to specific authors. The concentration on four core claims—whether robots can have rights, and whether they ought to—appears to be a safer strategy to cover more ground of this debate.

Thereby, the reconstruction efforts by David Gunkel's "Robot Rights" (Gunkel 2018) may serve as the basis for our elaborations here, with nods toward similar approaches. Gunkel's principal analysis of robot rights proposes to ask any approach two questions: first, whether robots can have rights in the first place, and second whether we should award them rights. Those two questions are distinct, as the answer to the first question does not necessarily determine one's response to the second.

Thereby, this debate generates four possible positions. Gunkel acknowledges that the very discussion about awarding robot rights can be dismissed as a categorical mistake, a position he calls "the unthinkable" (Gunkel 2018, 13). This position can not be squared with the double rejection of the two guiding analysis questions because it maintains that bringing those concepts together is considered impossible. A fruitful discourse, thereby, is not to be had—it simply does not make sense. Other people rejecting the possibility of reasonably discussing robot rights are Joanna Bryson, who derided the entire debate in an interview as a "waste of time" (Auer-Welsbach 2018) or Noel Sharkey.

A categorical rejection of this magnitude seems inappropriate, as the concepts of "rights" and "robots" are not as firm as this position presupposes. Recent advancements in AI engineering have made the realization of some projections of science fiction more likely, and the discourse about rights has advanced as well. To motivate those rejecting the very debate to participate, it is fair to accept the challenge to lay out the implications of what is meant when saying "rights."

6.1.1 A 4-Way Matrix

In the following, we discuss these four general claims briefly. Because of Gunkel's exhaustive work on the matter, our reconstruction of this debate can remain short. However, all four should at least be mentioned in order to discuss the underlying issues of the claim of interest for this project to then elaborate on how a relational approach will fit in this debate.

The first position in Gunkel's 4-way matrix rejects the idea that robots can have rights and rejects the notion that they should be given rights. This claim seems to remain within the intuitive notions of rights, as they require specific properties that robots simply will never attain. Additionally, no other technology has even been given serious thought of ever deserving rights. To defend this position, then, a specific concept of rights has to be justified that may not be shared by others arguing for robot rights.

And while opponents of this view may hold a different position on the concept of rights altogether, some may claim that robots will, in fact, be able to attain these properties. This position sometimes argues for creating some sort of servants-class (Peterson 2007; Bryson 2010), in which robots may fulfill all requirements for rights, but ought to be denied those. This position shows a specific interpretation of "rights," as, for most authors, the assertion that something can have rights follows by the fact that these rights are to be recognized while calling for AI agents to be exempt from this normative premise requires a specific concept of "rights." This position has received a lot of pushback, mostly concerning the notion of justifying the institution of slavery by allowing robot–slaves (Estrada 2020). There is, however, a more differentiated position possible that comes closest to the spirit of this position. One could claim that robots may be eligible for certain rights, but the social process of recognizing and awarding those rights should be approached conservatively to avoid misguided projections.

The opposite of a double rejection is a double acceptance. The position here claims that robots should have rights because they can have rights. Most philosophical arguments in favor of this position refer to the expected increase in abilities of robots over the foreseeable future, leading up to assumptions about an eventual general AI. Defenders of this position thereby can share a similar concept of what "rights" require, as the technological progress will validate those claims. And while nobody at this stage of technological development seriously advocates for immediate recognition of certain protective rights for existing robots, some countries have begun expanding their legal code toward including robots (CIC 2017). Thereby, we can understand this position in the robot rights debate as a preliminary endeavor on how we can approach the inevitable question of whether highly advanced artificial agents ought to be awarded rights.

Of the highest interest for this project is the remaining position of claiming that even if robots cannot have rights, they still should be considered for being awarded those rights. For this, a different notion of the concept of "rights" is required. If the Kantian premise of normative demands "ought implies can" applies, then claiming that robots should eventually be assigned rights even though they cannot have them is contradictory. That is because assigning rights in the property-view include assigning specific normative capabilities. Rights come with responsibilities, and without the ability to recognize and honor those responsibilities, something should not be awarded rights. This view is a similar point to animal rights. As animals do not recognize any duties due to their lack of human-level speech and consciousness, they cannot be assigned rights. In defending this position against counterarguments, the difference in the use of the term "right" may become evident. Thereby, if we can argue for different use of the word "rights," then we may reject the verdict that this view is contradictory.

However, first, we ought to examine other arguments brought against this view. In going through Gunkel's collection of arguments against this position, we can find that the relational approach defended in this project is avoiding those. The first argument against this approach to robot rights refers to Bryson's rejection of empathizing with robots (Bryson 2000). The assumption here is that awarding rights to robots is based on a mistaken empathetic move. Similar to empathizing with fictional characters, people can relate to robots, while disregarding the humanity of their fellow humans. Thereby, we require a criterium that is not resting on "moral sentimentalism," but independent from an emotional response.

We can reject this argument on the grounds of our relational approach. As pointed out in Sect. 3.9.2, social relationships with robots are not as arbitrary and one-sided like para-social relationships, but interactive and reciprocal. Disregarding the pragmatic relevance of those relationships as purely sentimentalist is thereby a mischaracterization of the motivating factor of those relationships. In fact, the relational, pragmatist approach defended here gives criteria to allow for internal differentiation between human–machine relationships. Thereby, considering assigning rights to those entities is not based on sentimentalism.

The second argument in Gunkel's discussion refers to the anthropomorphic issues with robots. People who are willing to assign rights to robots may be deceived about the true nature of the technology, as people are projecting human features onto entities that do not have those features. Thereby, awarding robots rights while also holding that they cannot have rights is based on misattributions about the capacity of those robots (Gunkel 2018, 138–139).

We can reject this argument as well, based on the theory laid out before. While it is true that anthropomorphism plays a role in the way people build relationships with robots and animals, it also applies to human–human relationships. We do not call those projections "anthropomorphic," as we know that the features could be found in other people's minds. Instead, we call it "trusting," as we assume that people exhibit certain reliability of their behavior due to states of mind.

Trust and anthropomorphism are of the same pragmatic motivation. Both are motivated by the fact that, for the pragmatic reason for guaranteeing our own cooperative efforts, certain assumptions about our cooperation partners are made. And especially considering that those assumptions of trust are not about states of mind (as we have pointed out in Sect. 5.4.1.1, relating to others via mental states is not a working reconstruction), but about cooperation and other pragmatic purposes, the same can be said about certain technological entities. By pointing out that the social relationships between humans and machines ought not to be described as if we were dealing with human–human relationships (Sect. 5.6.4), we may even reject the idea that this is an issue of anthropomorphism. To make this point even more explicit, consider the distinction between naïve anthropomorphism and advanced anthropomorphism. Naïve anthropomorphism denotes those projections that are clearly mistaken if taken seriously. Those include worrying about a cleaning robot not getting enough food or that Siri is angry when being approached brazenly. Advanced anthropomorphism is about the ascriptions of certain features based on repeatable, reliable behavior based on a collective, shared understanding (e.g., ascribing a certain "humor" to a dog for enjoying a particular toy). Thereby, these projections are justifiable to a degree since they resemble human behavior to a pragmatic degree. We can find some of these projections in some pet behavior, e.g., there is research into whether dogs can "smile" (Weber 2020), while certainly not all projections of pet behavior are justifiable. When talking about anthropomorphism in legal manners, we usually refer to the latter, and the missing distinction of the grades of anthropomorphism creates a strawman argument. Advanced anthropomorphism, then, is pragmatically not too different from trusting other humans.

6.1.2 The Relational Turn

This debate about whether robots should be awarded rights while rejecting the idea that they can have motivated some to "think otherwise," as Gunkel puts it. This is not only a pun on the philosophical concept of the Other as previously mentioned, but also a fundamental twist to the robot rights debate as a whole. Coming from Levinas's work on the Other and the relevance of social relationships as a foundation of ethics, Gunkel suggests that the core of considering robots worthy of moral consideration is not their actual, potential, or eventual attainment of moral agency but the quality of relationships they are building with humans (Gunkel 2018, 159f). Thereby, their entrance to the moral circle is not predicated on them being "able to enter," but by the decision of the moral community to add them themselves.

Gunkel explains the definitory issues of determining what a robot is by pointing out that the robots we may want to consider in a robot rights debate are constantly changing and with it our expectations of what robots may become in the future (Ibid., 22). Thereby, a debate about "robot" rights is already presumptuous. We noted before that embodiment ought not to play a role in this debate, since our interactions with entities using natural language are the primary phenomenological impact of relevance. The relationships built, with unembodied chatbots or embodied robots, then, do not make a difference in the dimension of properties these entities possess.

Gunkel's proposal, then, is a relational turn toward the Other by reference to Levinas (Ibid., 170). Levinas's merit in this debate lies in the uncovering of the method how Western philosophy was an enterprise largely concentrated on identifying the same, and not the other. Thereby, exclusions from moral consideration were organically flowing from the assumption of who counts as same, and who counts as other. Gunkel moves, with Levinas, to focus on the permissibility of adding entities to moral considerations. The metaphor of having a "face" (Gunkel 2018, 170; Coeckelbergh and Gunkel 2014) is doing some of the work here, as it can be described similar to the phenomenological impact we attributed to NLP agents. In giving robots this "face," a move Gunkel admits is not provided by Levinas (Ibid., 171), they may enter our homes as accepted social members—and thereby deserve moral consideration.

A similar approach has been presented by Mark Coeckelbergh (2010a, 2010b, 2012), who also reconstructs what he calls "moral consideration" of robots by reference to our social relations with them. He underlines the importance of the appearance of certain features as the key part of those social relations. Coeckelbergh states in the well-established phenomenological tradition that we can only claim knowledge of objects as they appear to us (Coeckelbergh 2010b, 214) Thereby, the reliance on the appearance of features ought to be the relevant measure for moral consideration, as the best indirect justification for moral patiency.[1] He acknowledges that those appearances are both context- and subject-dependent, however.

Coeckelbergh moves to include robots in our "social ecology" (Ibid., 215) that reach a certain level of relational relevance to us. The term "social ecology" is to be understood similar to the general concept of the "social" or "social fabric" used throughout this book, as it reconstructs the social not only as a horizontal affair of equal agents but as a diverse collection of different forms of social relationships. Adding entities other than humans to this ecology has precedent in both Western as well as Eastern cultural traditions. Through this ecology, we can justify granting moral patiency to certain robots without having to do the laborious and controversial work of defining "robot" beforehand. It thereby allows for the diversity in relational spaces that we have examined in Chapter 5.

These approaches, while providing many similar answers like the one defended here, create some fuzzy edges that ought to be avoided. First, due to the unpredictability of technological developments, any relational approach aiming to establish moral patiency ought to provide a pathway from patiency to agency. That is due to the nature of moral discourse as demanding for discourse participants to take up duties. Eventually, we may want to accept that some robots are capable of being morally obligated, as they are indistinguishable from human moral agents. And while this is not so much a fundamental issue with Coeckelbergh's approach, but rather a theoretical gap, the reference to "appearance" as the hook for relational considerations may not provide the tools to close this gap. In turn, de-centering the human role in moral discourse by referring to specific pragmatic requirements of discourse participants, the "coming of age" of robots from patiency to agency may be incorporated without any issues.

Second, it remains unclear what the role of context- and subject-dependency of those appearances plays in Coeckelbergh's overall approach. In rejecting the idea of a specific approach to evaluating human–robot relationships, an explanation of how exactly an intercultural discourse about recognition of certain relations could look like. Thereby, the requirement of "appearance" seems somewhat of an unwarranted assumption about the relevance of interactive systems. It is entirely plausible to assume that different cultures and sub-cultures will react very differently to the question of which "appearances" are sufficient for moral consideration and which are not. This cultural diversity-issue merely reroutes the debate to the subject of moral discourse and who gets to decide which appearances are acceptable.

Third, returning to Gunkel's approach, it seems unclear if the metaphor of "facing" is explaining the given differences in relating to certain robots. As we argued at the beginning of this book, the ability to talk with us, in opposite to mere behavioral interactions, ought to be considered a fundamental change in creating relational space. The relational habits of humans, learned by the domestication of animals, are not projecting well onto robots. As a result, humans begin relating to speaking robots as if they are relating to human beings. The lack of familiarity with the speaking artificial Other triggers social scripts we only know from relating to the human same, not the animal other. Thereby, the metaphor of "face" and its subtle move toward embodiment and "presence" may be a bit presumptuous here.

The last point of criticism against the relational positions of Gunkel and Coeckelbergh showed most prominent in their choice of metaphor: facing the Other, in the form of robots. This shows a certain assumption about the object we are relating to and puts up the previously carved out philosophical issues of embodiment vs. disembodiment. If the linguistic capabilities of robots are in fact the core reason why our relationships with artificial agents are of special potential, as we have argued here, then the question whether those agents will be embodied or not ought to be principally neutral to the question of assigning rights. However, a replicable, somewhat ethereal, and disembodied entity like a conversational artificial agent, is a hard sell for critics of this position, as there is neither a "facing" of the other, nor even a subject to be had (unless the artificial agent has been personalized or otherwise specific toward a user's needs).

In general, the entire robot rights debate, similar to the debate about other forms of human–machine interactions, presumes certain embodied features to take a role. If the rule of avoidance of reification, i.e., in the case of AI the identification of intelligent software with some hardware, is taken seriously, a new challenge toward questions of rights is given. In most standard theories of (moral) rights, the physical presence and capacity of the bearers of rights are presupposed to motivate any legal reasoning (with one exception being the discourse around abortion and the rights of the unborn fetus).

Relational theories so far have failed to include the possibility that future relations between human beings and machines are the deepest with a refined conversational artificial agent, not with a robot. In an expansion of the debate, the term "robot rights," similar to many other areas of debate, would benefit from being renamed to reflect that disembodied agents might play an important role within these discourses. As society moves toward a digitized mode of many social relationships, many legally relevant interactions are being performed purely online and without the physical presence of the two involved parties.

6.1.3 The Return of Pragmacentrism

In Sect. 5.3 on moral patiency, we introduced a line of thought that may help find a sensible position in the robot rights debate that includes disembodied agents: pragmacentrism. The idea of pragmacentrism was to refer to every moral agent as capable of participating in moral discourse, as those discourses may yield duties and other obligations. Agents, by this understanding, are capable of acknowledging and following those duties, and every entity that is not capable of the latter cannot be considered a member of the former. So far, so good. With this approach, however, comes the idea of tutoring or chaperoning responsibility of agents toward those entities that are deserving of moral consideration but are not capable of moral agency.

Children and animals have been considered paramount examples of this approach, as they are clearly worth of moral protections and a place in moral discourse, but not as participants due to their lack of acknowledging duties and responsibilities. We alluded to the idea that robots may be added to the list of this group of chaperoned entities by leaning into the relational approach.

Now, how can a pragmacentrist approach navigate the robot rights debate? In establishing moral patiency of robots by burdening moral agents with the task of chaperoning, one can conclude that "rights," understood as the property-based assignments of certain guaranteed treatments, are an unhelpful means to approach the issue. This way, it is in line with Coeckelbergh's and Gunkel's approaches.

The difference between the relational approaches so far and the pragmacentrist idea is that a tutoring approach retains some of the current ideas about agency. However, it connects to Gunkel's and Coeckelbergh's ideas as an extension of how the agency-patiency recognition can be morally motivated in the first place. We have seen that the relationship between humans and robots ought to be understood as a new type of social relationships and we have opened the relational space by comparing it to a second domestication (Darling 2016 is arguing in a very similar direction). However, in a discourse ethical approach, we require agents to set the rules. Thereby, we do not de-center the moral subject so much as we de-center the conditions of a moral subject and the exclusive rules of being a moral subject. In a different way of phrasing this idea, the ascription of agency is less of a description of certain properties exhibited by an entity, but rather the acknowledgment of this entity's position on a moral discourse. Thereby, acknowledging agency is acknowledging the position in a moral discourse.

This way, we can re-approach the debate about robot rights in a somewhat different manner. First, the claim, as put by Gunkel, "Even if robots cannot have rights, they should have rights" can be considered contradictory, as it violates the "ought implies can"-principle. Yet, what is actually asserted in this position is the idea that despite lacking the features required for assigning rights, robots still are deserving of them as there are other qualifying reasons to assign rights: A normative-legal community is its own authority on whom to grant rights. And while it is understandable that coherence in assigning rights is a valuable feat to avoid randomness in the legal system, there might be outweighing reasons to assign certain rights anyway. Thereby, we can rephrase the claim like this:

> Even if robots cannot have rights like other legal individuals, they still ought to be assigned rights.

However, this still seems unsatisfyingly contradictory. As Gunkel and others point out, the mere discussion about robot rights does not imply that the concept of "rights" is identical to debates about human rights (Gunkel 2018, 51). Extending the legal system to other non-human entities may as well apply different concepts of "rights," e.g., closer to the normative term "claim." A claim can be understood as a position in a discourse of something to be treated a certain way-regardless of whether one can "make the claim," they can "have a claim." If this semantic approach was taken to resolve this contradiction, however, then it seems like another rephrasing ought to be made.

> Even if robots cannot be the recipients of agent-level rights, they still ought to be assigned patient-level rights.

We can strengthen the first part of this claim again by pointing out that the concept of "rights" does not have to be weakened that much to fit the argument, because we may want to differentiate "the right to be considered" and "the right to act." Darling's point of argument was also not for claiming hard legal rights, but a more mediate approach acknowledging that due to our relations, some robots may be deserving of moral protections (Darling and Hauert 2013; Darling 2016). This recognizes the fact that robots may end up deserving rights after all, as the concept of rights, similar with the concept of "legal status," is not about the transference of human rights to robots, but about the opening of our thinking in legal categories to genuinely new entities. For example, granting robots citizenship seems like a categorical mistake, as citizenship (and its associated rights) is contextualized within a human legal system. For a robot, "national identity" and a guaranteed living environment seem rather pointless concepts (James 2017).

However, some other protections, like the freedom from being destroyed without reason or infected with malware, could reasonably be claimed as a right no robot should be subjected to due to the status of the robot itself.[2] At the same time, it is entirely possible to have those protections in place to protect the relationship of robots with humans.

As the pragmacentrist approach has suggested, there ought to be a pathway from patiency to agency when robots eventually fulfill the pragmatic requirements to join moral discourses—including the acknowledgment of duties emerging from those discourses. Such a pathway would slowly change the justificatory arguments for such protective rights: while currently, the pragmacentrist approach calls for protections to consider robots morally due to their relevance to humans, it may eventually call for similar protections due to the ascribable agency of robots. As a "tutoring approach" to moral consideration, we can expect and encourage any pragmatically capable moral entity to grow from patiency to agency.

It thereby avoids the issues we have encountered with Coeckelbergh's and Gunkel's approach, as a concentration on the discourse pragmatics ought to be agnostic about whether entities other than humans can participate in discourses. Anthropocentrism is not invested, as mere pragmatic requirements for joining a discourse are given.

6.1.4 Conclusion—Robot Relational Protections

The robot rights debate demonstrates the unsettled theoretical landscape of philosophy of technology, especially AI. While some ridicule the very thought of granting robots rights and see a reasonable debate as impossible, others campaign on reworking the legal system now to ensure that robots are incorporated. The crassness of opposites in positions suggests a lack of stable intuitions about commerce with robots will do with us and should do with us. Many of those arguments, then, come from an anticipatory perspective: some fear the reintroduction of a slave-class if robots only count as servants. In contrast, others fear the hollowing-out of key properties of the concept of rights if robots do count as legal subjects.

Like Gunkel's and Coeckelbergh's relational approaches, the one defended here does not fit this matrix too well, even though one may count it as agreeing with the sentiment that even if robots cannot be the bearer of rights, they still should count as such. As shown, this statement requires some elaboration to become acceptable. Rights are not necessarily connected to properties since a moral community determines for itself whom to grant rights. And while those properties may eventually be fulfilled, they ought to remain pragmatic. Thereby, a pragmacentrist approach to the robot rights debate can avoid some of the issues encountered in this debate.

6.2 Human-Centered Design

For many debates in interactive systems, the idea of human-centered design and thinking is a guiding principle. The official ISO-definition of this principle specifies the approach:

> Human-centered design is an approach to interactive systems development that aims to make systems usable and useful by focusing on the users, their needs and requirements, and by applying human factors/ergonomics, usability knowledge, and techniques. (ISO 9241-210:2010(E))

Essentially, the idea behind human-centered design is the principle that we ought to design any technology with the use of such technology in mind. And especially concerning interactive systems, this approach is applicable to AI and especially the design choices in creating artificial conversational agents. This principle allows for the deduction specific rules of technology development, as well as a shared basis in how to evaluate technological applications. If certain applications are created to exploit its users, then there are clear normative violations.

The human-centered thinking approach is the explicit or implicit core of most moral assessments of technology, as the moral subject is usually presupposed as the user of a certain technology. This central position leads to measuring up every technology to what it will do to human users and whether humans are also the object of other people's use of said technology.

Additionally, this human-centered thinking suggests a specific interpretation of human–machine relationships, as the design of the latter is always supposed to benefit the former. And considering that all machines are, in fact, designed and made available by humans, those human–machine relationships are ultimately about human–human responsibilities. Creating conversational agents under this guiding principle, then, is to commit to creating them in a way that they will not cause unjustified harm. We should consider it an open question of whether a human-centered design approach will recommend any sophisticated artificial speaker as acceptable, as the issues of anthropomorphism in such a design has been pointed out in previous chapters. Any emotional relationships with artificial conversational agents can be disappointed and uncovered, and it remains unclear to what extent users can consent to develop emotional bonds with convincing artificial conversationalists. The ensuing harm of those disappointments or re-discoveries could then be unjustified, as the technology may present a psychologically harmful deceptive quality. Those emotional relationships, one could argue from a human-centered design perspective, should be avoided by designing artificial spekers that do not offer themselves for any relational purpose, i.e., avoiding all too engaging language uses against the explicit industrial trends and interests of creating conversational agents that increase user engagement.

6.2.1 Against Human-Centered Design?

This view, with all the necessary praise for its productive and reliable way of assessing technology, is limited to the categories applied to it. This approach leads philosophers to make a distinction between humans and non-humans that is insurmountable by any other reason but the fact that it is about humans, regardless of the sophistication of the non-human subject. That is, by the very premise of human-centered design, this approach is limiting its moral scope to humans.

The animal rights movement, advocating for awarding legal status of certain highly evolved mammals, serves as a counterweight to this human-based thinking by pointing out a certain relational relevance of animals to the legal system of humans. The argument here is that human legal systems are built on those limiting moral categories to speciesism, like awarding rights to humans merely because they are human, or ascribing abstract concept like personhood based on belonging to a species. The animal rights movement claims, however, that awarding legal status recognizes certain developmental steps, like the capacity to feel pain. Thereby, our legal system ought to extend to the animal kingdom, even if the specific rights that animals should be awarded are up for debate. And if we expand our legal system toward non-human agents, then we clearly ought to consider those non-human agents in designing technology.

This extension of legal categories is not necessarily a clear instruction on how to design interactive systems, as those are merely derived for human use. Thereby, human-centered design is not at odds with animal rights, as their overlap is small. However, transferring the insights of this animal rights movement to technology is not self-evident, as they are both subject and object of this design. Robots participate in those interactive technologies, and at the same time, are part of those technologies.

As we stated above, it is certainly possible to award robots certain legal protections both based on their relevance for their users (by basically declaring some advanced robots and their software public domain and protection), but also by virtue of their complexity. The concept of "rights" may require some reconsideration, as the term invokes strong intuitions and emotional reactions based on those intuitions, while "protections" or "legal status" may be more productive. Similar to cultural artifacts like artworks (painting, monuments) and significant performances (like traditions) or natural landmarks (rivers, mountain ranges) (Eckstein et al. 2019), some AI agents may be deserving of legal status.

We may encounter an issue between human-centered design and robot rights, however. Some have begun asking about certain interests of the robot for the robot's sake (like Steve Peterson in the context of sex robots, [Peterson 2017, 155]). If we were to take this position seriously, and we may have to in the future, it will lead to designing technology not only to advance the well-being of human beings but to advance the well-being of everyone interacting with a certain technology. It is unclear how conflicts between the design interests of robots and those of human beings can be resolved, even though it is already foreseeable that these conflicts are going to be fought with emotional verve.

This conflict does not seem to materialize in the way normative conflicts usually materialize. In making some design choices for humans, the product may be a robot that is capable of "suffering" if its interests are being ignored, possibly in the form of a sex robot and other forms of service-oriented robots. However, anticipating the robot's interests before creating it presumes that those created interests cannot *not* be created. If we equip a robot with the ability to feel or suffer, and we put it to use in tasks that will cause this suffering, we might as well argue that the equipment of said suffering is misplaced. Measuring this suffering against the human suffering by de-centering design from humans, the design choices of robot construction are taken into account as if they were an equal factum with the ability of humans to suffer. That is simply not the case.

The motivations for creating more and more capable robots to the point where they might start plausibly claim certain capabilities that ought to be recognized is to serve human purposes. If we construct a robot that is surpassing human purposes by competing with those purposes, its development simply has overshot the needs of technological development (similarly argues Thomas Metzinger [2009] that we should not create a robot that can suffer). Thereby, human-centered design within the robot rights debate can provide a theoretical limit as to how far robot development ought to go: the moment robot needs and human needs are measured against each other, we ought to reject the robot's needs. However, the social-relational, pragmacentrist approach suggests that there are reasons to take robot needs into consideration. That is the case when some human needs are depending on those robot needs.

6.2.2 Robot Relations, Human Realities

There is another side to human-centered design that may interfere with the high-flying goals of robot construction. The human factor in creating and applying artificial intelligent agents is often overlooked as a condition for the success of technological promises. This is true for some PR-strategies (like the case of what was presented as an advanced humanoid robot ultimately just being a man in a robot-suit) as well as the everyday use of algorithms to improve the efficiency of certain work processes, often to the detriment of human workers (Valovic 2018).

As some argue (e.g., Birhane and van Dijk 2020), the categories of debating AI ethics ought not to be AI agents vs. humans, but corporations vs. workers. Presuming that no robot will have interests to be taken seriously, they urge to understand the economic ramifications of the current developments. Robots are not the innocent inventions of humble engineers in their garage, but the product of giant corporations with enormous power to exploit given economic structures to their advantage. Without taking into consideration the human toll of developing artificial agents, the debate about robot-interests is already biased: one could conclude, in fact, that human-centered design is already failing those who are supposed to implement the new possibilities of AI. From overworked delivery drivers to permanently surveilled office workers, without casting a wide enough net about the effects of AI on society, the debate about robot rights is leaving out crucial parts of human society.

The relational approach taken here is not directly contributing to this debate, as it concentrates on a specific type of AI, the communicative, and those human agents that are open and willing to enter relationships with them. However, this does not mean that only one of these debates is valid; both concerns, the one about the economic circumstances of AI development and the one about the relational space of human–machine interactions, are normatively legitimate as they both pertain to humans interests.

The former indeed affects the other, as has been analyzed in Sect. 4.5. However, ignoring the progress made on the front of relational spaces and emerging human–machine relationships will not help anyone and only will lead to further alienation of those who do see meaning in relating to artificial beings. On that ground, both areas of thought have their place in the contemporary philosophy of AI.

6.3 Including Non-human Agents in Normative Systems

The move of proposing to include non-human agents is a logical consequence of accepting that artificial conversational agents will not be meaningfully different in their skill, but also a consequence of opening the possibility of relating in a genuinely new way, as has been elaborated in the previous chapters by redefining the social as a relational network.

If some speaking machines gain the skills to talk with us to the degree that allows for a sufficiently big group of people to relate to those artificial agents in a sufficiently convincing manner (that is, convincing for those who do not relate to those agents but can understand the merits of such a relation) or if artificial agents gain those skills so that people relate to those speaking machines in a manner that is on-par in relating to pet animals, and if those relationships are determined to be fundamentally different from any human–human relationship and any human–animal relationship, then a new category is required to outline the circumstances, conditions, and consequences of those new human–machine relationships. This argument is the building block to establish the social category of human–machine social relationships. Some of the interactions between robots and humans have been pointed out already, like the need to understand the term "friendship" between humans and machines as a possibly unworkable category not in practice but in the essentialist presumptions and the history of the term as exclusively denoting certain human–human relationships.

The relational space opened with this idea is not empty. However, it also still requires some positive answers as to what those new relationships within this social category could look like.

6.3.1 Relational Real Estate

As we elaborated before, some philosophical approaches to understanding human–machine relationships as neither anthropomorphic nor dismissible are somewhat vague about the extent and quality of these social categories. It does not seem like robots will reach sufficient levels of all human capabilities any time soon. However, it would seem like a mistake to rest on the assumption that a simple "never going to be human" would suffice in rejecting any social convention-building effort to include robots. Both the fact that people will be starting to relate to technology socially, as well as the philosophical support for some of those relations, renders a dismissive "not-human argument" toothless. We may all be very well aware that those relations are not at all like human–human relationships, but an insistence on that may not suffice to convince those in relationships with machines to value them differently. Whether we agree with this development or not, we better prepare for a future with active human–machine relationships.

6.3.2 *Legal and Digital Persons*

In the following, one proposal of how we can socially categorize chatbots and other artificial agents in our social fabric is put forward. The main goal for this chapter is that we can work on developing the relational space with new descriptors to populate the human–machine relational landscape.

The suggestion made here might help with recognizing a certain status of those robots that neither entirely unprecedented nor coming from a given social circumstance: the digital person. It is common in legal theory to recognize "legal persons," which are usually institutions like corporations or nations, to be considered the subject of a certain action, contract, or otherwise. "Legal persons" are thereby culturally tested entities representing certain collective actions. Through collective action, in which no individual can be identified as the "main" or "core" agent, questions of responsibility are diffused and limited. The discussion about the ontological status aside, there is a certain plausibility to treat "legal persons" as if they were actual acting individuals in the context of responsibility and legal ramifications of collective actions. However, whether individuals or collectives are the adequate addressees of blame for legal or moral transgressions is depending on strict institutionalized rules.

A "legal person" is thereby a social construct which, for many purposes, we are happy to ascribe agency and liability to, if not even degrees of responsibility. And while this only extends to the normative realm of legal theory and practice, similar concepts have been discussed in the area of technological development. One can follow several approaches in detaching the issue of agency and responsibility from singular, atomic agents (like humans), e.g., Verbeek's "joint responsibility" (Verbeek 2009) and Nissenbaum's "many hands" approach (Nissenbaum 1996). With these, not only legal persons can be considered a workable entity in certain normative contexts, but digital persons in certain social contexts.

While with legal persons, there is no debate on whether they should have rights similar to natural persons,[3] they are still acknowledged as "addressable" in a communicative sense. People in Germany tend to complain about the German train corporation without having any person specifically in mind—they are referring to the legal entity of the corporation. Thereby, it seems like legal persons can be, to a certain degree and certain contexts, considered similar to natural persons. However, ontologically there are clear differences between legal and natural persons, as natural persons are individual agents, and legal persons may be collectives. That is to show that for introducing the term "digital person" for social-philosophical purposes, the ontological status does not have to be cleared.

We could even go further by pointing out that "digital persons" are, in general, closely related to legal persons in their blame-structure. If a chatbot insults someone, like the Twitterbot Tay has done (for an analysis of Tay's case, see Liu [2017]), we can to a degree blame the Twitterbot (without the urgent feature of having a blame subject, as the functional theory of blame seems to suggest by referring to the functional role of blame of directing responsibility, not as a state of mind that requires a blame subject, see McKenna [2012]), but also the engineers that constructed and published the bot. However, the engineers would not be blamed as if they just had insulted someone, but that they did not performed the required thorough oversight to prevent those insults from being produced. The idea of joint responsibility of autonomous technology and its creators allows for a transitional blame-structure in which technology start sharing some of the blame without the blame being misdirected toward an a-responsible subjectless entity.

Legal persons, as the established example of an amalgamation of collective action, do not always behave in a way that would be predictable for any involved agent; similarly, digital persons will behave in ways that no engineer could predict with certainty. Yet, with legal persons, we are comfortable assigning blame. Thereby, it seems also reasonable to expect that the moral community will learn to assign blame to digital persons as both entities in their own right as well as a subject to blame a group of collective agents.

Ontologically speaking, legal persons are a different category to natural persons, but still very much "real" in the sense that they are part of our shared reality and have effects on us as much as other institutions and organizations. And if the ontological concept of a legal person is not causing philosophical stomachache, then it seems hard to argue how digital persons, as similar composite entities, should be treated any differently.

6.4 New Social Fault Lines

A relational approach, like the one presented here, is not limited to human–machine relationships. It might appear that way, as establishing the relational space for human–machine relationships is the primary goal both for this approach as well as some others (Gunkel 2012; Coeckelbergh 2010a, 2014; Darling 2016) However, there is an entirely different dimension to this debate that ought to be reflected upon here—and that is its consequences on human–human relationships.

The question of how the presence of artificial speakers in society will affect human–human relationships has two sides: on the one side stands the issue of those who reject any form of human–machine relationships. In an increasingly digitized world, more people than ever before concluded that the constant use of digital media and participation in this second-layer reality is exhausting, over-demanding, and ultimately not in their best interest. The speed with which technological innovation is changing people's lives has caused some to reject those innovations altogether, e.g., the movement of "Neo-Luddites" who advocate for activism to slow down technological innovation (Jones 2006). Movements to slow down or highly regulate technological progress often comes as a reaction to the cultural and social impact these technologies are anticipated to have, rather than the progress of technology itself.

On the other side stand people who are open and willing to adopt new technology. For our relational approach, most interesting are those agents who are establishing relationships with artificial conversational agents and perceive those relationships as meaningful. Eventually, they will ask other human agents to take them seriously in those relationships (or, at least, in their perception of them). There have been cases of para-social relationships that made headlines, as people claimed to be in romantic relationships with the Eiffel Tower (Simpson 2008) or other objects. The move of pathologizing those para-social relationships as mental disorders will reach its limits when the depth of chatbot-interactions is not reasonably described anymore as a "subject-object relationship," through, e.g., the lense of attachment-theories.

Yet, these two dimensions are not distinct, and some innovative technological applications may be reaching people who otherwise reject technological progress. For example, care robots or self-driving cars could hope for high acceptance rates with people who otherwise would depend on other humans to help them with their tasks. The potential for increased mobility and care for people in an age-group usually risk-averse might change their mind on some concrete applications, not on the technological infrastructure as a whole. They might be using a self-driving car to see their grandchildren, but reject any form of innovation in their respective areas of interest.

Thereby, the new fault lines will not emerge between humans and robots, but between humans of different moral and cultural convictions. To elaborate on those fault lines and how to propose to ameliorate them, we require some distinctions.

6.4.1 Rogers' Bell Curve and Its Limits

Currently, sociological distinctions between technology usages and interactions are usually classified among Rogers' bell curve first published in "Diffusion of Innovation" (Rogers 1962), in which Rogers differentiates between innovators, early adopters, early majority, late majority, and laggards. This characterization has helped classify different approaches to new technology by focusing on the usage and involvement of users with a given innovation (usually a certain type of technology). Innovators and early adopters are signifying a small, technology-forward minority and the majority of technology users being late adopters ("late majority" and "laggards" are constituting roughly 50% of technology users in Rogers' estimate). This approach has been a very popular and successful basis for explaining and predicting certain uses of technology among a population. It also has been elaborated to include social circumstances of an individuals' attitude toward certain technology, like access to said technology, age, general technophobic, or technophile social surroundings. With these inclusions, we can construct more accurate models about the likelihood of an individuals' preference for using or not-using certain technologies at certain stages of this technology's diffusion in society.

However, with certain types of attitudes toward and use of technology come social ramifications for any user (or non-user). As pointed out above, many issues between humans rejecting new technology can be found here. The term "laggard" is often understood from the side of early adopters as a term of derision and is cause for generational divides. For example, the use of the app "Snapchat" has been characterized as a marker for a generational gap (Alvarez 2015). In part, due to its unique approach to communication and convention-breaking user interface, even some early "digital natives" do not connect too well with this type of technology. This cut-off creates a social ecology of mostly young media users under the age of 25.

And while generational gaps highly correlate with the acceptance rates of new technologies (Ibid.), this does not apply to all technology users, and only some applications. Especially in medical technology, many otherwise laggards are keen early adopters (Ketikidis et al. 2012), as medical technology, such as new pharmaceuticals or operation devices are mediated through a trusted and widely accepted expert-system of doctors.

Turning to artificial conversational agents and their anticipated development, we can notice these gaps as a common occurrence: media users growing up with those conversational agents to talk to will receive them fundamentally different from older users. Their perception of chatbots and other NLP-using algorithms as part of the "objective spirit," i.e., the culturally given reality, will result in fewer questions and philosophical issues with these AI-occurrences as people may have right now. It is highly doubtful whether people growing up with a more elaborate personal assistant will question its ontology on a regular basis and may be more open to accepting the relationship with those assistants as meaningful, even if there are ontological doubts whether the relationship they have with it may be fake or insincere.

Thereby, those who do not participate in interactions with artificial conversational agents might become alienated from those who are comfortable interacting with communicative AI. However, abstinence from the use of certain technology and the resulting split in society may be explainable with the common denominations of Rogers' bell curve: the difference in approaching technology, whether favorably and open or averse and unfavorably, has been an issue before communicative AI has emerged, and thereby is not a genuinely new issue.

However, the emergence of artificial conversational agents that are relatable to early adopters in a previously unforeseen way creates a genuinely new social problem. According to Rogers and other technology acceptance models, innovators and early adopters usually make up a minority of technology users. In the characterization from above, those innovators and early adopters ought to be understood as developing a new kind of relationship to technology that goes beyond mere "adoption": they will establish human–machine relationships perceived as meaningful. Due to natural-language processing allowing artificial agents to keep intellectually and possibly emotionally fulfilling conversations, these relationships will reach social relevance.

So far, the relational approach to human–machine relationships can explain how those relationships could be understood and socially categorized. However, the gap between laggards and innovators, i.e., the social distance between those who enter social relationships with robots and those who reject robots as relatable altogether, will encounter a hard conflict.

The more complex and convincing speaking machines become, the less persuasive the insistence becomes that artificial agents are no entities we can relate to. It becomes an issue of whether we should relate to them in the ways some people practice. Additionally, every instance of improved skills of those conversational agents will make a pathologization of human–machine relationships less plausible, as has been pointed out above as well. This conflict is thereby becoming a normative one, as the conflict is primarily not about people's attitudes toward robots and the idea of human–machine relationships, but about people's attitudes toward other people's attitudes toward human–machine relationships.

6.4.2 On Robophobes and Robophiles

The attitudes of people toward speaking robots are not limited to their own use of technology, but to other people's use of said technology as well, requires a new distinction between those who are rejecting these kinds of human–machine relationships and those who are willing to accept them.

As this conflict will potentially emerge and linger, as many social conflicts about human–human affairs are centuries old, the framing of this conflict is important. It is explicitly not an issue between humans and robots. For a long while, robots will not be capable of making any reasonable assertion about themselves unless we want them and make them to. We have seen this issue in the debate around robot rights and human-centered design: creating robots that demand rights for their own sake already presumes that we have left the human-centered design approach that we ought not to leave.

It is an issue between humans, instead. Or, more precisely, an issue between attitudes. The naming convention available for these conflicts in attitude suggests the suffixes -phile and -phobe, as they reflect the generally positive or generally negative attitude people can have. In connection with the robot rights debate, the subject may best be robots. Thereby, we can call the one side "robophobes" and the opposite side "robophiles."

Robophiles are willing to invest more emotional and cognitive capital in their interactions with robots or are accepting of those who do by reserving judgment. Robophobes deny the possibility of building meaningful relationships, and possibly are considering robophiles as being mistaken about their investments. If someone denies the fact that humans can have meaningful relationships with robots, such as friendships or merely trusted acquaintances, then they are committed to dismissing anyone who claims to have established such a relationship and thereby what I call "robophobic."

One reason for forming a robophobic attitude, then, could be a theory of mind that requires substantial mental states. However, this does not require robophobes to be aggressively anti-robot, as the term may imply. Rather, robophobes will not recognize any human–machine relationship as meaningful in a stronger sense of the word other than one of a service provider (robot) to a recipient of services (human). There are plenty of examples in the current literature, most prominently Noel Sharkey (Sharkey 2018), even though the term "robophobe" has not been used to describe them. Many of those robot-skeptical perspectives are also not intended to dismiss the human emotion behind those relationships, but rather warn that the construction of machines triggering those emotions are purely manipulative and ultimately deceptive (Ibid.). Machines that make us relate to them, in this perspective, are presenting and suggesting more than they can keep, resulting in human–machine relationships being fundamentally mistaken.

Robophiles, however, will claim to be able to establish meaningful relationships, like friendships, or at least accept and support those who do. The currently unclear definitions of what a "meaningful in the stronger sense" human–robot relationship can look like, both in a professional context as well as in the general population, contributes to misconceptions that may fuel resentments and prejudice. It appears that most people's threshold for a meaningful human–machine relationship is informed by science fiction, which usually portrays robots with unscientific assumptions about theories of mind and our computational abilities.

However, looking somewhat closer into psychological ramifications of what means to have a "meaningful" relationship, especially with an unembodied entity, we might want to add that reciprocity is not necessarily limited to intentional give-and-take. For example, "respecting someone" and "being respected by someone" are entirely definable within the perceptive limits of the affected agent, without referring to the mental state of “having respect for someone.” If certain behavioral protocols are performed, an agent might judge that they are being respected, even though those behavioral protocols may be performed disinterestedly. In this case, then, a robot may “respect” agents the same way humans can, without assuming certain states of mind behind the respecting entity.

Obviously, the two positions of robophobia and robophilia are not just absolute but allow for inner differentiation. One can reasonably have high requirements for accepting human–machine relationships as meaningful by expecting it to be nearly on the level of reciprocity as human–human relationships. These requirements would put someone on the robophobic side—not in absolute terms, but relative ones. Similarly, robophiles can differ in their interpretation of meaningful human–robot relationships. While some communities may be very quick to accept the attribute “meaningful” if someone claims their relationship is meaningful, possibly bordering on para-social relationships, others may put up some intersubjective conditions of reciprocity, durability, or, as presented in Sect. 3.1, embeddedness.

6.4.3 One Battleground: Robot Rights

The question of whether robots can and should be awarded rights represents a good test for the introduced distinction between robophobes and robophiles, as it is both a hotly contested academic question, as well as a matter for possible future civil rights movements. As stated at the beginning of this chapter, many areas of the robot rights debate only extend to human–machine relationships, not to robots themselves.

The difference between the extreme positions of the groups within the robot rights debate lies partly within the assumed possible relational space. While those discussions are currently limited to academic evaluations and conceptual debates about the best use of the concept of rights, some of those issues mentioned and discussed above are going to enter the public debate rather soon. The lack of alternatives between robophilic attitudes and robophobic ones may cause severe disruptions in society, as one side will eventually move forward, making political demands for which the other barely sees any reason to pursue.

Gunkel’s point in bringing up robot rights in the first place is not to advocate for them in any specific way, but to point out that ascribing and recognizing other people’s rights is a relational action between humans. The fact that working-class people, women, people of color, homo- and transsexuals, and other groups have been denied civil and political rights for most of the path of Western civilization is not grounded in the fact that those group did not have any rights, but that they were denied rights by not recognizing their status. The question emerging from this approach is whether or not we will eventually come to a point were recognizing robot rights will be a hard question to face or not.

The relational approach defended here suggests a similar approach to Gunkel, even though it recognizes that legal protections of certain tutoring-relationships are appropriate. Considering that law ought to protect certain freedoms and the well-being of the citizens living under the rule of law, protecting relationships perceived as worth protecting is a prime task of the legal system.

Due to the latest developments within legal frameworks to grant robots certain rights (CIC 2017), the debate about robot rights will soon face the first hard tests of the current legal systems. Both sides have begun activist groups to shape the debate in their goals, with groups advocating for the ban of certain types of robots (like for sex robots: Campaign Against Sex Robots [2015] or killer robots: Campaign to Stop Killer Robots [2012]), while others take a supportive role of introducing robot rights (ASPCR 1999).

6.4.4 A New Struggle for Recognition

And while a relational approach to robot rights may help to establish some moral distinctions and terminology, it still is an open question of how this terminology can be effectively placed in a discourse about the acceptability of human–machine relationships and the norms we can build on those relationships.

One way of looking at this discourse is by introducing a theory of justice that can help find norms of acceptability to guide future debates about human–machine interactions and their recognition in society.

For this purpose, the theory of recognition by social philosopher Axel Honneth (Honneth 1992) is an adequate entrance due to its focus on recognition of identities and relationships within the bigger context of power structures. Honneth claims that for the constitution of society, the social recognition of the other is a constitutive part. Recognizing others as what they are, while taking into account the circumstances of their identity construction, is, according to Honneth, a constitutive part of a just society.

In applied ethics, this theory has been considered a complementary element to other theories of justice, which have been concentrating on mere distributive and legal elements, like Rawls' Theory of Justice (Rawls 1971) or some legal positivism. The theory of recognition requires moral agents to acknowledge other people's contextual and complex subjectivity, and not seeing them as a compound of individual preferences and desires, like other approaches in social theory and theories of justice have done.

Human subjects, to put it concisely, are more than the sum of their preferential parts: they constitute complex contextual identities that are not encapsulated by distributive justice or simply giving them their due. Thereby, only striving to create institutions that provide an individual with all its reasonable needs while guaranteeing the overall freedom of society, like Rawls' idea of a just society presumes, is not enough as it ignores the subjective contexts, identities built-in historical injustices and privileges.

The focus on the complexity of human subjects puts expressed identities at the center of the recognition-approach to justice. This does not work without investigating the conditions of the expression of identities, i.e., its power structure, social conditions, and the historical background of any given institution (Honneth 2003). To create a just society from the perspective of recognition theory, then, it is paramount to allow for the expression of identities, be it cultural, sexual, gender, religious, or otherwise, and organize institutions in a way that does not suppress individual identity expressions, but support them.

Recognition theory has its roots in critical theory, as critical theorists like Lukacs (1967) have reflected upon the conditions of self-relations and self-expression in capitalist societies. Lukacs's main concern is the reification of the self and of relationships between people; that is, the perception of one's self as a thing due to the commodification of the relationships with others. Lukacs, unsurprisingly, identifies the capitalist social structure as the source for commodification of the relationships with others and the reification of the self.

These sources allow for understanding power structures, economic conditions, social circumstances, and individual self-expression as intimately connected—if the economic conditions are leading individuals to perceive themselves as things, a human connection based on recognizing the other as a human being is impossible.

With the importance of recognition as a social mechanism contributing to justice in place, we can assume that recognizing relationships that are considered meaningful by those who are participating in it constitutes an element of justice toward robophiles. A robophobic position, then, seems problematic on the grounds of recognizing a human being's subjectivity as experiencing a human–machine relationship as real as other relationships.

It would be just to call for recognizing those relationships as meaningful and worthy of some institutional protection, similar to the protection of pets not only as a property of their owner but also as an entity as significant emotional value to the owner.

However, we could argue on the robophobic side that not the recognition of human–machine relationships is the issue, but the reification begins with human–machine relationships. Considering that machines are things build with a capitalist logic in an effort to make money, building relationships with them must be transactional and contributes to the reification of the self as Lukacs's fears. Thereby, the reification of the self is amplified through relating to chatbots that are not individuals but are personalized machines produced for a market.[4]

This argument makes some assumptions that we rejected earlier. First, it supposes an essentialism about social relationships that we argued against in Sect. 3.3 Whether or not a relationship with robots is perceived as merely transactional or not is not for anyone to judge but the person in the relationship. We may warn them about the conditions and limits of a human–machine relationship, but those limits are not an essential qualitative marker of relationships, but the ones we are used to and deemed worth pursuing.

Second, the issue of human–machine relationships is not solved by pointing out the reification of the self and the capitalist conditions under which the reification unfolds. Nobody is forced to enter those relationships, but we may expect from anyone who does not that they recognize the human's independent identity of having relationships with robots. Denying others this recognition based on one's own assumption of the reified self in this relationship lead to similar paternalistic and robophobic arguments we have ruled out above.

6.4.5 Limits of Recognition

Yet, the theory of recognition also encounters some unique limits in the case of human–robot relationships.

One argument could be that nobody is born with an inclination toward human–machine relationships. Thereby, those who engage with machines on a level that demands recognition from others do so while rejecting the humans around them. Choosing one side can always be interpreted as rejecting another side, and choosing artificial speakers over human connections can be interpreted as a conscious effort to dissociate from one's social surroundings. Nobody can be expected to grant more than the basic courtesy of tolerance to those rejecting them.

However, we can reject this argument on two grounds. First, we simply do not know whether future generations will perceive robots in such a natural way that some develop natural inclinations for them over human companionship. Those "natural robophiles," then, are not choosing their preferences but perceive them as given. It may become part of ones identity to feel drawn to some design convention of conversational speakers, like their built-in patience or lack of judgment. Second, rejection does not forfeit one's claim to recognition. A hermit living all on their own devices may still demand recognition of their choices and identity. In fact, those who are rejecting us are merely the tough cases where a recognition-approach comes into effect: recognizing those in their identity, autonomy, and self-expressions that are close to us is easy. Recognizing those that are not is more difficult.

Another argument is that the recognition of those who relate to robots requires acknowledging the subtle power imbalance between humans and machines. Speaking machines are, in the end, able to be much more than just natural language processing companions; their design and ability allows them to record every conversation, extract data, like user patterns and preferences, and share those with the parent company. The fact that in the current situation of AI design and production, such a speaking machine's purpose is to increase user engagement, provides an insight into the severe imbalance of power that should inform the relatability of conversational agents. Siri or Alexa, even when personalized to fit a specific user's preferences, will share some sort of data with its parent company, and is not bound to the conversational customs we built based on human conversational limitations (a similar point make Newman & Blanchard 2019).

Thereby, any user developing a relationship with robots will most likely also be part of a one-sided power relationship with a strong corporation. In the same perspective of being cautious about the constructing purpose of chatbots, we should demand from human beings to develop and maintain a certain autonomy and level-headedness, something Shannon Vallor calls “technomoral wisdom” (Vallor 2016). Similar to the ethical theory of virtue ethics for human character and human–human relationships, we ought to insist on human agents to develop the necessary virtues such as technomoral self-control, in which, as Vallor puts it, we are “the authors of our own desires” (Ibid., 124). This wisdom-mediated autonomy should guarantee a person’s control and agency in every human–machine relationship by keeping ourselves in charge of the relationships we choose and the reasons that motivate these choices. The choice of those entering human–machine relationships cannot be preserved by going down a robophobic route of insisting that their relationships will never be meaningful, but by gently reminding them that those relationships are fundamentally different in nature than established human–human relationships and that what they are seeking may not be fulfilled in human–machine relationships. If someone accepts that fact, we can argue, we ought to recognize those relationships and should seek regulation to protect them the same way we protect human–pet relationships.

Thereby, the recognition of those human–machine relationships should not be unconditional, as this is a slippery slope toward para-social entities that might ultimately be harmful to the person in it, too. We can expect from humans willing to engage with machines a certain awareness of entering a relationship with an entity principally different from us. The individual responsibility for exerting Vallor’s “technomoral wisdom” when engaging in technology of any kind, is also called for when engaging in these new kinds of relationships.

6.4.6 Some Ethical Deliberations

As human–machine relationships become more complicated, intricate, and harder to distinguish from human–human relationships, the stakes are rising in how to find a social consensus about acknowledging these relationships. Their uniquely unfamiliar quality might pose some problems in evaluating the available options of how to deal with them.

However, there is a normative distinction to be made between robophobia and robophilia that is worth spelling out. The normative concerns robophobes may have are based on two-related issues: the first, somewhat paternalistic concern is that people might be getting hurt because they relate to machines in a way that is not (and may never be) covered by the machine's complexity. Human–machine friendships require involved reciprocity and intention, and many philosophical theories suggest that we are far away from implementing those in robots. Being mistaken about one's friendship with a robot can hurt due to the projection of features of human–human friendships, and this hurt is increased if we promote the idea that the transfer of friendship-features is possible in the first place.

Second, robophobes might be concerned that a liberal stance toward human–machine relationships eventually forces them to interact with robots in a way they reject. This consequentialist argument assumes that if human–machine relationships are recognized as such, robots will find their way into the social fabric of almost everybody. The base expectation of how to interact with robots may change to a robophobe's disadvantage. If human–machine relationships are accepted as possibly meaningful relationships, and Roger's bell curve moves forward, then the laggards are in a situation where their refusal to recognize and build relationships requires justification due to the "new normal" established by wide-spread acceptance. Even if robophobes gave up their first concern, that robophiles will be hurt by committing to misattributed relationships, then this second will remain: they will be required to in some form accept human–machine relationships, even if they refuse to engage with robots themselves.

Arguments against the first concern are rather striking. A robophobe's concern for someone else's vulnerability requires a strong paternalism that seems hard to justify. If we take other humans in their autonomy seriously and assume that they have developed the "technomoral wisdom" Vallor demands, then their choice to enter those human–machine relationships and the risk associated with these relationships ought to be respected. The argument to control other people's choices to enter relationships is hard to justify in the first place, and actively interfering with someone's wishes to relate to non-human entities requires pathologizing of those relationships or a strong moral judgment. With every instance of increased features of artificial speakers, this pathologizing move can be rejected, and with it, the paternalistic argument.

The second concern appears more substantial. As robots will become more and more ubiquitous in everyday interactions, equipped to maintain and reaffirm certain social customs, they will become part of the social fabric. Similar to seeing someone with their dog on the street, we will encounter people talking to their chatbot-friends or coworkers. Robophobes will be forced to acknowledge those speaking machines as social entities, even if they believe they should not be. And while it seems unlikely that there will be an argument to force robophobes to give up their attitudes toward robots, the issue lies with the recognition of other people's relationships with robots. However, as long as nobody is forced to establish social relationships with robots themselves, the argument only extends personal attitudes. We have discussed the issue of being mistaken about human or chatbot conversations in Sect. 5.1.1 as a downside of the paradigm of anthropomorphism. Nobody should be mistaken about whether they are talking to a human or a machine. But with those rules in place, being against the changing overall attitudes toward a possibly more robophilic society is not a sufficient argument.

6.4.7 A Positive Argument

Here, a more general point can be made. This debate mirrors some experiences with movements demanding recognition, from women's suffrage to the Black civil rights movement to the homosexual and queer liberation. The demand of those movements has been (and arguably still is) aimed at gaining recognition of their existence, their rights, their identity, and their relationships. And while a robophilia-driven movement may seem to be about demanding the recognition of intrinsic worth and rights to robots, it is actually about the relationships of humans with those robots. With the theory laid out here, we do not have to refer to robots as subjects and bearers of rights but can think of them as important factors in people's social lives.

And if the historic struggle of recognizing other people's relationships has us taught anything, then it is better to recognize relationships too early rather than too late. Homosexual or interracial relationships long have been dismissed as somehow wrong, often based on the same dynamic: personal attitudes toward the same sex or other races are being transferred to judge and dismiss other people's relationships. The safer strategy to defuse potential future conflict between robophobes and robophiles is to take this lesson from these historical struggles and err on the side of magnanimity and acceptance.

6.5 Conclusion

The divide between those who accept and use the next stage of natural-language processing AI and those who oppose such technology is bigger than mere technology adoption. The fundamental changes not only to society as a human–human enterprise but as a richer network of agents that are on the horizon are out of the scope of Rogers' bell curve. Thereby, new terminology ought to be introduced to delineate the divide between those who believe that meaningful human–robot relationships are possible and those who do not.

We proposed to distinguish between robophobic and robophilic attitudes. The idea behind this distinction is not to focus on the reservation people have toward robots, as those reservations are depending on highly contingent design choices and engineering paradigms, but pointing out that this divide is whether some people's claimed relationships ought to be recognized or not.

For this, it is not helpful to point at the extreme cases of people developing para-social relationships. In Sect. 3.9.2, the difference between social relationships and para-social ones has been clarified. Whether a human–machine relationship is being recognized as a social relationship or dismissed as not a full relationship, is not only a philosophical question but will be a political one. Similar to the robot rights debate and the unfolding political movements there, the issues about accepting others and their choices to rely on machines for their social relationships will be a concern for public debate.

Recognizing those relationships may contribute to justice, as often enough history has shown an early recognition of relationships is the position to prevail in the long run. There are some valid concerns on the paternalistic side, as the power imbalance between humans and machines is built on the difference in how conversational artificial agents "remember" events and "know" certain facts that between human–human relationships would not occur. Thereby, the creation of sociable machines ought to be guided. However, this does not suffice as an argument that justifies fundamental opposition to human–machine relationships, which is presented by some robophobic authors as the only "reasonable" way to react.

Notes

1. It should be noted that Coeckelbergh does not use the term "moral patiency", but that his efforts to argue for moral considerability of robots through human-robot relationships is very much covered by this term and thereby shall be used here.

2. John Danaher calls these obligations “procreative duties.”
3. An exception might be the current precedent set in the “Citizens United v Federal Election Commission” case of 2010, in which the Supreme Court of the United States of America ruled in favor of the group “Citizens United” to grant legal persons the right to free speech, and counting donations as speech, concluding that corporations spending money on political actions is covered under the first Amendment to the US constitution. Similarly stipulates the German Constitution (“basic law”, Grundgesetz) that all basic freedoms also apply to legal persons “as far as the nature of such rights permits” (Basic Law 1949, §19:3).
4. This argument is owed to Sebastian Nähr-Wagener.

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CHAPTER 7

Conclusions

7.1 Thinking Forward

Before we take a look at what lies ahead, we should look back at the lines of thought we followed to get where we are right now.

In the chapter about social relationships, we explored the relevance of ascribing social descriptors, putting social relationships into a pragmatic context. Instead of assuming predetermined social categories and concepts like an essentialism does, the view proposed here reconstructs social relationships as the flexible characterizations of socially recognized interactions. These interactions are conditioned on technological progress and availability.

Domestication and digitization were identified as being two ways technology has changed our understanding and thereby our characterization of social relationships. Domestication made it possible to enter social relationships with animals, the interpret their relationship with us based on a genuinely new social category. Digitization, in turn, showed that not only new types of social relationships are possible, but that the essentialist definition of some common relationships, like friendships, is inadequate.

The chapter on conversational artificial agents was intended to be less philosophical and more a reflection on the technological progress of artificial intelligence. The specification of dealing with chatbots made such a reflection on intelligence necessary. Without a solid understanding of the technological processes and progressions involved

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in the production of chatbots, the relationship of natural language processing with other forms of AI, and the current method of teaching algorithms how to speak, the philosophical consequences would have been untethered from reality.

The concentration of possibly unembodied conversational agents is motivated by the conviction that language represents the constitutive part of the human mind, and that sophisticated communicative AI will have a fundamentally different impact on our perception of AI as "an Other" than humanoid robots will.

We saw that language models are growing in size and sophistication. Due to practically unlimited available language data from often unaware internet users, these models could be considered "general" in the sense that chatbots will soon be fully open-domain, i.e., convincing conversation partners.

With both a concept of social relationships and speaking machines at hand, an exploration of social relationships with those speaking machines was possible. The core issue of chatbots is the norm of anthropomorphism in their construction. The imitation game of human speakers has led many to react skeptical toward their use, as issues of deception, embarrassment, and imbalances of power can occur. To ameliorate those issues, we proposed to create chatbots that are distinctly non-human. This non-anthropomorphism comes at the cost of disorientation. If human speakers are not the goal of imitation, how would we design speaking machines?

Some of the common philosophical approaches were discussed, especially the relationship of those chatbots to Hegel's idea of an "objective spirit." With the introduction of the points of domestication and digitization, we found that chatbots may have a similar effect to lead to genuinely new, yet substantial and meaningful relationships as domestication did. Domestication has not put forward one singular category of relatable animals. In fact, it has brought a variety of different relationships, from which only a few are social relationships. This variety of relating to animals can be transferred to AI agents. Just because something is artificially intelligent does not tell us much about its relatability. However, language does, and thereby chatbots. This lays the groundwork for approaching human–machine relationships between humans and speaking robots from a supportive perspective: many human–human relationships lack physical presence thanks to the digital possibilities of connecting with people all around the world. Communicative skills like being a good listener, the ability to keep secrets, and availability for one's needs are of high importance for many people and could be implemented in chatbots without requiring anthropomorphistic strategies.

The recognition of human–machine relationships left us with a challenge many philosophers have tackled: the debate on whether robots should be awarded rights. However, through the line of thought walked down in this book, this debate appears somewhat odd. While many discourse participants argue whether robots could ever be agents to be deserving of those rights, or if they will ever have mental states of such complexity that they cannot be ignored any longer, our relational approach had some straight-forward answers to the initial question. As have David Gunkel, Mark Coeckelbergh, and others claimed before, this debate ought to be about the relations build between humans and robots, not about robots as a decontextualized subject. In fact, this decontextualization does not make much sense from a relational perspective, as without those relationships, this debate would lack motivation. The fact that "robot rights" is an issue in the first place is that there are some people credibly claiming to be entering social relationships with robots. The relational approaches in this debate focus on those relations, not on the robots themselves. This book proposed to understand these relationships as one of tutoring. The recourse to discourse ethical assumptions provided us with a tool of de-centering an agency-centered approach to ethics and established patiency to those entities that otherwise would not be taking part in moral discourse: pragmacentrism.

Pragmacentrism concentrates on the pragmatic abilities of those participating in a discourse, and until robots fulfill these (or if they never), we still can take care of them due to their relevance to other agents. Representing robots in discourse does not require embodiment of any kind, thereby reaffirming the relevance of the relational part over the specific robot.

However, this position may also come with some challenges if human-centered design is put into consideration. The construction of a robot with needs and skills to suffer may be inherently immoral if we cannot guarantee that it will not constantly suffer; however, those robots would certainly create more intimate relationships with humans. Eventually, this development may lead to weighing a robot's interest against a human's interest. We argued here that such a weighing process ought to be undercut. Taking a relational approach seriously commits us to insist on the relationship as the basis for moral consideration of the robot.

Lastly, we reflected on how human–machine relationships will affect human–human relationships. Not only will the ubiquity of artificial intelligent technology lead to people rejecting the technology in many forms altogether. However, this strong rejection and those new forms of relationships people form with a technology entirely rejected by others will certainly create tension between advocates and critics of chatbots.

Since these are substantial issues about the extent to which human–machine relationships ought to be protected, an adequate naming convention would be one of robophobes and robophiles. It reflects previous struggles for recognition of those entering human–machine relationships as a genuinely new form of social relationships. Moreover, as a recommendation of how we should treat these issues of intimacy and identity, we found that erring on the liberal side of those issues has been a prudent move to avoid harming vulnerable populations.

7.2 Acting Forward

The initial reaction of adults toward Aibo and their concern that children playing with a plastic toy would lead them to be desensitized toward animals was mistaken. The children did not lose their category of social relationships to animals due to an inanimate object. Instead, they seemingly effortlessly expanded their understanding of social relationships toward this barking piece of plastic. This goes to show that our social categories are open and expandable if we allow them to be. The lack of certain skills or assumed mental states will not keep people from building trusted relationships with chatbots, use them as their go-to listener to vent about work or a heartache. Chatbots are used to help autistic kids find a conversation partner with the endless patience a human being would not have (Newman 2016) or are used in psychotherapy as a non-judgmental, disinterested yet understanding listener. The options of using talking machines in our midst are endless once we break away from anthropomorphism as a guiding rail and tool of rejection for the construction and acceptance of chatbots.

The technology is there. The arguments are there. The theory is there. Whether the social acceptance is there, is questionable. As one consequence, the philosophical work cannot stop in finding a strong argument in the robot rights debate but communicate it to those who are skeptical of the entire process. Psychologists may pathologize humans entering human–machine relationships similar to the pathologization of excessive internet use without understanding that the use was an outlet for vulnerable populations to connect with similarly affected people. Legal scholars may have a particularly rigid understanding of what "rights" are and reject any notion of protecting an artifact because of its significance to the artifact's owner. Similar to the animal rights debate, the robot rights debate demands some action to change some minds. A relational approach may provide the argumentative tools to do just that. In a nod to David Gunkel's approach to "think otherwise," we may want to encourage to "think forward" and "act otherwise."

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