Future Talk:

Imagining and (Mis)Using Artificial Intelligence in Human Communication

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Abstract

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This project explores how the rhetoric surrounding artificial intelligence envisions human communication practices as benefitting from emergent AI technologies. As part of a larger sociotechnical imaginary, individual users, tech companies, and public thinkers produce texts making claims or speculating about the potential of AI that is supposed to enhance or participate in human communication. This dissertation traces these discourses across three case studies involving recent developments in artificial intelligence designed for communication. An AI-powered public speaking app, a robot that teaches emotional communication skills to children, and public responses to the rise of generative AI are put forth as specific instances that offer a glimpse into how AI is increasingly imagined as suitable for communication labor. Through a rhetorical analysis, I investigate how these recent technologies are imagined as intelligent communicators and distinctly machinic entities, rather than mere mimicries of human beings. In the process, I argue, these ideas of what AI could do for human communication also shape societal ideals of useful communication. The assertion that some communication is useful also implies that some forms of communication are useless. While AI may be a relatively new invention, this project examines how these underlying values of usefulness and attitudes towards communication labor rearticulate a long history of normative communication ideals.

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This dissertation is the culmination of a decade spent in three different higher education institutions thousands of miles apart from one another. This journey from the Midwest to the Southwest, and all the way up to the Pacific Northwest introduced me to so many new people and experiences that made me a better person. These individuals deserve more gratitude than I can sufficiently provide over these next few paragraphs, but I will try my best.

In Illinois, I learned about this word called "rhetoric" while competing on my university's speech and debate team. My speech coaches, particularly Dr. Jonathan Carter, introduced me to rhetorical criticism and the exciting possibility of becoming a rhetorician in graduate school. I brought this informal education into the classroom, eager to further explore these ideas in classes that were not necessarily designed for this. In a political communications course, my professor Dr. Joseph Zompetti pointed out that I did not write a political communications final paper, but a rhetoric essay on gendered metaphors about geography. Whoopsies! How lucky I was that he later signed off on an exception for me to take his graduate seminar in rhetoric while working towards my bachelor's degree. Even when I ignored their instructions to follow my own desires, my teachers and coaches nurtured my curiosity so that I could find my corner in our discipline.

In Texas, I met my master's advisor Dr. Johanna Hartelius who challenged me in all the right ways. She helped me find a clear direction amid the various ideas bouncing around in my brain. I also met my fiancé during my time down south. I could have kept it comfortable and stayed in Texas for the rest of this process, but I feel that discomfort is necessary for true growth. By some miracle, I convinced my third-generation Texan boyfriend to move across the country with me so I could pursue my dreams in a much wetter state. Ken and our excellent cat, Goldie braved cloudy skies and so much more so that I could do this research. He is and always will be

my greatest motivation to keep going when matters, such as getting a doctorate during a global pandemic, might seem impossible.

In Washington, I met the friends and faculty who would complete my search for belonging. My advisor, Dr. Leah Ceccarelli gave my writing the detailed feedback and precision that I craved. She lifted me up and reassured me of my potential when I was tempted to give up on myself. The hours of academic and emotional labor she dedicated to me throughout these past four years is the kindest thing anyone has ever done for me. Leah, call me if you ever need a kidney or something. I owe you more than I could ever give.

As for the rest of my dissertation committee, Dr. Amanda Friz was not only a fantastic reader but an impactful educator. She created a writing group for rhetoric students finishing our dissertations where she brought writing prompts, tips to avoid imposter syndrome, and baked goods to a group of very hungry graduate students. In many ways, Dr. Friz taught me what it means to be a good teacher and a thoughtful person during strange times. When it comes to finding the right words, Dr. LeiLani Nishime always had a book up her sleeve to help me (re)frame my thoughts paired with deep conversations that translated complicated academic theories into our daily lives. My GSR, Dr. Anna Hoffmann, taught one of my favorite graduate seminars of all time and helped me better comprehend the theoretical lineages that shape critical theory. Together, these women made up a supportive and comprehensive committee that helped me finish this dissertation with joy.

That joy was also brought on by my colleagues turned friends who cheered me on at my defense. Laura Irwin, Lando Tosaya, Hai Wang, and Dr. Jenny Lee gave me endless affirmations as we collectively navigated the perils of graduate school life. We may not always get to live in Seattle together, but they will always be a part of me and the person I am still becoming.

INTRODUCTION

Imagined and actual robots are not nearly as new as some may think. The earliest stories about robots and attempts to build mechanical creatures can be traced back to Ancient Asian and Greco-Roman cultures. For instance, Greek mythology envisioned a bronze giant named Talos created by Hephaestus, patron of technology and the god of the forge.[1] Throughout history, mechanical devices built in the image of a human were imagined. Science fiction short stories would often depict automata as devices to replace racialized and/or feminized labor. For some, referring to a human person as an automaton was considered an insult, marking them as less than human. It was not until Karl Capek's 1920 play R. U. R. (Rossum's Universal Robots) that these machines were referred to as robots.[2]

Now in the 21st century, robots go by many other names such as machine, AI, or android. Modern robotics is far more advanced than it used to be, but some of the stories about these machines follow eerily similar patterns across decades and perhaps even centuries. From independent films to advertisements for the latest new gadget, western cultural narratives around robots tend to either treat them as utopic possibilities or evil entities eager to overthrow humanity. As a result, there may be a mixture of excitement and concern about the increasing diversity of abilities these machines possess.

In the past decade, robots moved beyond replacing workers on assembly lines and into more abstract tasks thought to be exclusive to humans. In 2022, artificial intelligence that makes art captured news headlines around the world and was met with mixed reactions. While some were fascinated, others such as Mexican filmmaker Guillermo del Toro expressed disgust at the idea of AI art generators. As he told *The Decider* in 2022,

> I think that art is an expression of the soul. At its best, it is encompassing everything you are. Therefore, I consume, and love, art made by humans. I am completely moved by that. I am not interested in an illustration made by machines and the extrapolation of information.[3]

The art world is far from the only space thrown into a series of societal, academic, cultural, and ethical questions thanks to these new innovations. The art, act, and academic discipline of Communication is also an increasingly popular destination for automation. In fact, the National Communication Association 2022 Annual Conference recently welcomed an exhibitor promoting a public speaking improvement platform powered by artificial intelligence.[4] AI-powered or otherwise, countless public speaking classes were changed from in person to online courses due to the COVID-19 pandemic, accelerating our move to technologically enhanced communication pedagogy. Workplaces, friendships, and relationships are also progressively moving away from in-person communication, pushing communication instruction and practice in more technology-intensive directions.

For many, communication may be, as del Toro says of art, an "expression of the soul and encompassing everything you are." But is that a reason to doubt technology's ability to effectively participate in, contribute to, or teach communication? My dissertation project begins from this question with the hope of understanding the rhetorical forces that shape our perspectives on artificially intelligence for human communication. More specifically, my work is guided by the following research questions:

> *R1: How are recent AI technologies presented as intelligent communicators?*
>
> *R2: What do texts surrounding AI tell us about the sociotechnical imaginary regarding machinic rhetoric?*

R3: How does the use of AI in human communication shape ideas of useful communication?

To answer these questions, I turn to three imaginaries of artificially intelligent communication within devices that currently exist. More specifically, I explore sociotechnical imaginaries of aural intelligence, emotional intelligence, and corporate intelligence to better understand the relationship between AI and cultural ideas of communication competency and kind of intelligence that is most valued. Like many rhetoricians before me, my method of analysis is a close reading of texts in context. I will demonstrate my arguments through a rhetorical analysis of three case studies about artificially intelligent technologies. To begin, I analyze corporate and public imaginaries of Orai, a public speaking app, and its aural intelligence. Then, I examine projections of emotional intelligence on a children's social robot named Moxie. Finally, I turn to sociotechnical imaginaries of ChatGPT's corporate intelligence to understand how we make sense of AI as a productive worker.

Scholarly Contribution

At this moment, the academic study of technology takes place across a variety of fields, in departments of Computer Science, Information, Sociology, Communication, Bioengineering, and countless others. As a communication scholar and critical rhetorician, I am especially interested in humanistic and power-conscious perspectives on technology. While not all studies of technology are concerned with power, critical examinations of technology are appearing more frequently as the cultural and political dynamics of machines become clearer. Scholars producing this work typically come from a liberal arts background and agree upon the principle that technical objects and systems have politics.[5]

Some utilize historiographical accounts to understand the logics that underlie present-day technologies. For instance, Lewis Mumford points to the clock as one of the most pivotal and important moments in the birth of machines and capitalism alike.[6] My dissertation project will provide historical background for each speech communication technology that is analyzed, but primarily focuses on recent texts.

Scholarship that focuses on contemporary technologies and the corporations that produce them frequently takes up humanistic and qualitative methods. Kate Crawford demonstrates this methodology in her book, *Atlas of AI,* when she pays a visit to an Amazon warehouse. She observes that "controlling time becomes another way to manage bodies" in the technology industry.[7] Equally critical scholarship shows how technology shifts, reifies, or amplifies existing cultural constructions and hierarchies. Ruha Benjamin's *Race After Technology,* a key monograph in the interdisciplinary study of technology, examines how race is a technology "designed to separate, stratify, and sanctify the many forms of injustice experienced by members of racialized groups."[8] She goes on to show how racism is not only worsened by technology, but that the tool of race and social categorization is coded into contemporary technologies such as algorithms. As a result of these logics, the inclusion of Blackness in technological systems "is more akin to possession.[9] Put another way, facial recognition technology that cannot recognize Black faces does not become more inclusive or just by collecting more data on diverse faces. This practice only heightens technological capabilities to surveil and criminalize racialized populations.

In pointing out the harms of these systems, many authors seek transformative suggestions for research and praxis alike. Crawford proposes a feminist politics of refusal where people and cities choose to not use AI. Meanwhile, Benjamin views these harmful structures through

abolitionism to inspire technological practices that may overturn existing systems of control. Other study instances in which users of technologies resist industrial logics and create their own narratives around technology. For example, Christina Lindsay calls for recognizing the agency of users and the role they play in co-constructing technologies across history and into the present. Specifically, she highlights how an old computer system introduced 25 years ago, the TRS-80, continues to have an avid user base of hobbyists who create meanings around the device in online communities long after it was abandoned by producers and advertisers alike.[10] In her interviews, she found that users, unconvinced by capitalist promises of speed, resisted buying the newest technologies and re-engineered the TRS-80 to do the things they wanted.

These voices from science, technology, and society (STS) studies influence my work in my home discipline of Communication and Rhetorical Studies. The Rhetoric of Technology is a subspeciality with Rhetorical Studies that also studies technology, but with more shared disciplinary norms and convictions. In the past two decades, studies of technology and rhetoric often focused on texts in digital spaces but are not restricted to such artifacts. Aaron Hess' definition of rhetoric is shared by many in this disciplinary space: "rhetoric examines the nature of meaning-making, identification, and persuasion, oftentimes in the context of advocacy, deliberation, argumentation, or aesthetic performance. Rhetoric has been defined in many ways by many individuals, but at its core, it maintains a focus on meaning-making."[11] The artifacts I am concerned with are not necessarily digital like the messages shared on a social media platform, but they are texts about, within, and produced by technological devices.

This dissertation contributes to Communication, STS, and the Rhetoric of Technology by offering a critical perspective on AI technologies for human communication. My focus is unique in that it examines AI in the context of teaching human communication. Existing inquires of AI

in these areas often discuss the impacts of AI more broadly, whereas my focus is dedicated to specific devices and discourses. I study the discourse surrounding emergent AI, rather than the machines themselves, offering a unique perspective on how the public understands and discusses these new devices. In analyzing public facing texts about AI, I unveil how normative ideals regarding intelligence, utility, and communication are imbedded in these processes. Instead of focusing only on how these machines work, I explore the rhetorical sensemaking and imaginative practices that shape how the public perceives AI.

Key Concepts

My dissertation is born from the notion that discourse producing imaginaries of artificial intelligence can tell us a great deal about the rhetorical and cultural implications of new technologies. Within rhetorical studies, multiple scholars describe a civic imaginary in which rhetorical action influences affect-charged ideas of what citizenship means.[12] Work in STS also offers a humanistic take on social imaginaries that is more specific to technology. Specifically, Sheila Jasanoff's concept of sociotechnical imaginaries explores how collectives imagine the social world in relation to national technological or scientific pursuits.[13] In a later essay, she further clarifies that sociotechnical imaginaries

> are not limited to nation-states as implied in our original formulation but can be articulated and propagated by other organized groups, such as corporations, social movements, and professional societies. Though collectively held, sociotechnical imaginaries can originate in the visions of single individuals or small collectives, gaining traction through blatant exercises of power or sustained acts of coalition building.[14]

Throughout this project, I use her concept to illustrate how the public speculates about new forms of artificial intelligence. I am not necessarily focused on how governments or nation-states

forward technological projects. To be clear, some of the texts I analyze involve matters such as user perceptions of AI products or individual opinions published for the masses. These texts by themselves do not constitute entire imaginaries but represent smaller pieces of a larger sociotechnical imaginary. Much like rhetorical scholarship on civic imaginaries, I am interested in how specific rhetorical actions help shape shared public imaginaries of artificial intelligence in human communication, and by extension, ideas of how humans ought to communicate.

In addition to capturing how the public imagines these devices, I am also interested in how AI and the practice of communication are recognized as useful. And I am interested in how users of AI might (mis)use these devices beyond their intended purposes. Grounded in Sara Ahmed's work on queer use, I question how ideas of utility influence the application of AI to human communication processes. In her monograph she explains that how useful or useless something or someone is deemed to be leads to violence and otherization. In turn, Ahmed advocates for queer use/misuse of things which is "when things are used for purposes other than the ones for which they were intended." While this concept "still reference the qualities of things; queer uses may linger on those qualities, rendering them all the more lively."[15] In other words, queer use reconceptualizes how we might utilize and eventually come to understand various phenomena differently through misuse of things that were intended for another purpose. My scholarly contribution will specifically focus on the rhetoric of AI technologies, extending Ahmed's work to offer rhetoricians another way to think about subversive rhetorical practices around these artifacts and what communication and intelligence we deem "useful" in our field.

Chapter Outline

Chapter One—Aural Intelligence: Technologies of Speech and the Enchanted Determinism of Self-Improvement

From voice assistants to voice-activated navigation systems, speech recognition technologies are a ubiquitous part of life in the twenty-first century. Despite the appearance of novelty, these devices are built on a rich history of computational systems designed to detect and create acts of communication. To understand the underlying logics behind speech recognition technologies today, we need a thorough understanding of its origins.

Telecommunications in the mid-twentieth century were the birthplace of speech recognition technologies. Bell Laboratories' (an affiliate of AT&T) invention of the Audrey system in 1952 marked the first time a system was able to detect spoken numbers. Both industry and government interests fueled the continued development of more advanced speech recognition systems that detected words.

Corporate fascination also coincided with public speculation about the possibilities of these devices. Fictional imaginaries of computers that understood the voice surged only a few years after IBM introduced "Shoebox," an invention that understood and responded to sixteen words, at the 1962 World's Fair. In 1966, the first season of the famous *Star Trek* series featured a computer that recognized and responded to the voices of shipmates aboard the USS Enterprise. Shortly after, the 1969 film *2001: A Space Odyssey* depicted a talking computer system named HAL 9000 as human-like in its ability to listen to speakers and use its own voice.

The capabilities of nonfictional speech recognition accelerated in the 1970s and 80s as United States' government agencies and universities started to take an interest in the work corporate researchers started. As the possibilities of this system grew, so did its applications. Thanks to Texas Instruments, children's toys became a bustling marketplace for speech-based technologies. Over the years, talking and listening computers were presented as educational and fun toys for children. Initially, the Speak and Spell was a handheld device that would verbalize

the words children typed on its interface. In 1987, dolls such as Julie were introduced as magical companions who could understand what users said to them and respond with various pre-programmed phrases.

It was not until many years later that the feminine-labeled systems that powered "Audrey" and dolls like "Julie" became the personal assistants with feminine voices that sit on your countertop or rest in your pocket. The first case study in this dissertation focuses on a specific voice recognition technology, Orai, to illuminate emerging practices with AI designed for speech. I investigate how a technology better known for the labor of personal assistants is framed as an expert instructor of Communication.

This chapter will examine how Orai produces technoliberal imaginaries of agency, both human and machine. I will also pay heed to how its reviews indicate that some users (mis)use the app beyond its intended purpose. Ultimately, I will argue that technoliberal rhetoric is Orai's primary strategy for convincing customers to use their app because it invites users to imagine a perfect version of themselves that is only possible through the app's artificial intelligence.

My work will also examine how technoliberal rhetoric is used to imagine a kind of agency for users. Orai is a consumer product used by individuals seeking its promises of self-improvement and stronger personal agency, or by corporations trying to improve the communication skills of their employees. I take up this case study as an important cornerstone in understanding how narratives of self-improvement and technoliberalism encourage users to imagine AI's competence in human communication.

Chapter Two–Emotional Intelligence: Imagining and Embodying Social Development

Cultural speculation about new technology's potential to revolutionize learning is around every corner with headlines declaring that technology is going to transform education. However, teaching machines and the exciting discourses that surround them are anything but novel. In fact,

the first attempts and conversations about automating learning happened over a century before the invention of the personal computer. The very first teaching machine patent was granted to Halcyon Skinner in 1866 for a wooden box that asked students questions with rotating paper discs.[16] The conversation picked up among academic circles when educational psychologist Dr. Sidney L. Pressey encouraged the development of teaching machines that were often constructed of wood and a few small mechanical parts, especially for assessment through multiple choice testing.

The educational system did not widely adopt Pressey's machines at first. Major distributors of toys and educational products eventually flooded the market with machines made to teach or communicate with children shortly after B.F. Skinner made the case for teaching machines in the 1960s. Dr. Skinner, a Harvard professor of psychology, both built on Pressey's work and claimed to advance it by reconfiguring the kind of learning the machine encouraged.

Notably, his advocacy for teaching machines was far more publicized than Pressey's through academic publications, lectures, and magazine articles. Unlike many of his academic and inventor counterparts, Skinner was regarded as a public intellectual and a visible scientist.[17] In addition to creating a different kind of machine than Pressey, it appears Skinner was also taking a different rhetorical approach to encouraging the integration of teaching machines by questioning the efficacy of the education system itself.

Skinner was known for studying a variety of topics concerned with human behavior, but his interest in education came from a personal place. In one of his autobiographies, Skinner detailed how a visit to his daughter's private school prompted his interest in teaching machines. He noticed that students were completing their work at various rates and the teacher could not find the time to accommodate their different paces.[18] Shortly after this experience, he built a

teaching machine out of a rectangular wooden box. Students were given cards with arithmetic problems to solve and put into the machine. In later versions of the early invention, the knob would turn, and a bell would ring if the answer was correct.[19]

Psychologist Edward Fry noted how this changed the direction of teaching machines, writing that "Pressey's devices were used more as supplemental adjuncts to courses and textbooks, and Skinner's as replacement for texts and classroom instruction."[20] More specifically, the multiple-choice evaluations proposed by Pressey gave students several options, many of which were incorrect. Skinner contrasted his approach as a distinctly behaviorist invention because it required students to formulate their own answer and receive positive reinforcement.

One of the prominent rhetorical strategies present across Skinner's public cases for teaching machines is his repeated descriptions of the educational system as dysfunctional and averse to change. He articulates a rhetorical situation where education reform is ineffective, and students are suffering from a lack of innovation in learning.

For instance, *The Saturday Review*, a popular magazine, published Skinner's essay in 1965 aptly titled "Why Teachers Fail." Here, he opens the piece with condemnations of ineffective solutions for a broken education system. In a republished version of the original essay, he writes

> Pedagogy is not a prestigious word. Its low estate may be traced in part to the fact that under the blandishments of statistical methods, which promised a new kind of rigor, educational psychologists spent half a century measuring the results of teaching while neglecting teaching itself.[21]

Skinner's specialty was not in educational psychology, but he seemed eager to offer opinions on its deficiencies. He also criticized the education system's avoidance of scientific and technological rigor:

> Scarcely any area of human activity has been more resistant to scientific analysis and technological change than education. Although our homes, offices, factories and means of transportation have been transformed within a generation, the typical classroom and techniques of teaching have hardly changed in a century.[22]

In other words, some of the earliest teaching machines were created under the assumption that human teaching was unsatisfactory and could be enhanced through technology.

Chapter two will focus on one modern inheritor of that assumption, the development of AI-based toys that claim to teach emotional intelligence and social development. Artificially intelligent toys are the subject of futuristic excitement and critical privacy concerns. Many of these so-called smart toys boast about being able to hear and communicate with children while simultaneously feeding their data to third party companies.[23] Toys that use artificial intelligence to collect data prompt a variety of considerations for scholars of STS. Toys that process that data and make claims about children's emotional development raise even more concerns for teachers and policymakers. There certainly are several ethical and technical questions we could ask of these novel products. From a rhetorical perspective, a close reading of the persuasive appeals used to develop and sell these technologies can provide insight into the underlying logics that lead to their adoption. Despite their invasive potential, these devices continue to swarm the market for childhood development and even receive awards for innovation.

There are several robot toys that claim to help children learn science, language, and other skills.[24] Among the many smart toys available, Moxie from Embodied Incorporated offers a

particularly rich case study for scholars of rhetoric because it claims to be a communicator that teaches social and emotional skills to children.[25] This prompts a series of questions about how a machine can be construed and imagined as a social-emotional being and a teacher of social-emotional health.

In this chapter, I will detail user experiences and promotional materials about Moxie by paying close attention to the robot's body and physical presence. There are several approaches to studying bodies and rhetoric, but I am especially interested in understanding Moxie through embodied rhetoric.

Admittedly, an author or rhetor (in a traditional sense) is hard to identify with Moxie. Is the rhetor the robot itself, the engineers who build it, or the people who write the words it says? Existing work in rhetorical studies sometimes considers technologies related to the human body as embodied rhetoric, especially in the case of wearable technologies.[26] I plan contribute to this area of study by placing a stronger emphasis on how co-constructed embodied rhetorics of human development contribute to sociotechnical imaginaries of AI. Much like Leslie Mabry's thesis on social robots, I take both producer and consumer rhetorics into account.[27] So as far as this chapter is concerned, Moxie performs the embodied rhetoric authored by its creators and in response to the individuals interacting with it. Ultimately, I will investigate the way Moxie and its surrounding texts communicate its social and emotional abilities and invite users to imagine a kind of intelligence for AI that was previously thought to be exclusive to humanity.

Chapter Three–Corporate Intelligence: Popular Imaginaries of Generative AI

People dreamed about technology long before machines or computers were invented. In some cases, popular works of literature and art popularized mechanic speculation with narratives about advanced automata. For instance, Homer's epic poems from antiquity featured intelligent

machines, making Homer's narratives of AI part of the cultural fabric that programs how we tell stories about and perceive AI today. Back then, he depicted the fire god Hephaestus engaging "with this automated machine as if it were his slave."[28] Many years after the fact, imagined advanced machines often appear as artificial slaves in popular culture. In short, speculations about technology not only shape how we perceive devices before they are even built, but these ideas often reappear in future speculations.[29]

Imagining future devices has a direct impact on their development, reception, and policies. As Stephen Cave, Kanta Dihal, and Sarah Dillon argue in the introduction to their edited collection *AI Narratives*, "by influencing the perceptions of policymakers, and by steering public concerns, narratives also affect the regulation of AI systems."[30] Even fraudulent automata displays were influential imaginaries of what machines may be able to accomplish. In her study of eighteenth-century entertainment automata that purportedly could speak (but were secretly powered by a hidden human's voice), Julie Park asserts that these public showcases exemplify "the porous boundary between popular and intellectual culture that automata occupied during this period."[31] In other words, popular imaginaries of machines are more than silly stories or displays; they shape knowledge production and societal ideals as these machines become a reality.

Fifteen years ago, Microsoft founder Bill Gates predicted that robots would be the next big thing. He was convinced of this partially because, as he puts it, "over the past century, anthropomorphic machines have become familiar figures in popular culture through books such as Isaac Asimov's *I, Robot*, movies such as *Star Wars* and television shows such as *Star Trek*. The popularity of robots in fiction indicates that people are receptive to the idea that these machines will one day walk among us as helpers and even as companions."[32] His writing

demonstrates that speculations or predictions technology executives make about their consumers, or about the future of their industry, are invested in the cultural imaginary of technology.

Fictional or otherwise, the way our society speculates about current or future technologies can tell us a great deal about their cultural implications. This chapter is dedicated to understanding how imaginaries of generative artificial intelligence that does rhetorical labor envision social futures. Through this analysis, I identify how the kind of intelligence assigned to AI might be identified as rhetorical, intellectual, or creative. However, I argue that public discourse about the benefits, limitations, and potential futures of generative AI covertly engage in the rhetoric of corporate intelligence. I identify corporate intelligence as a term to describe the capacity and knowledge to complete tasks in a manner that is ideal for corporations. Put another way, corporate intelligence is different from emotional intelligence, streets smarts, or rhetorical ability. It values the ability to perform labor with enhanced efficiency, less costs, and less complaints under late capitalism.

Generative AI was a centerpiece of AI discourse before and after the release of ChatGPT. ChatGPT, an artificial intelligence bot developed by OpenAI, can produce writing, images, and information by sourcing from a large database. Users can type natural language prompts and ChatGPT will respond with answers to questions, essays written on a topic you provide, or even speeches written in the style of a person you name. This invention is still relatively new, so the creators have warned the public that "it's a mistake to be relying on it for anything important right now" because "we have lots of work to do on robustness and truthfulness."[33]

Despite OpenAI's apprehension, ChatGPT is making news headlines with authors predicting how it will impact the world as we know it. Whether people speculate about its potential in education or marketing, these conversations often center the fact that ChatGPT can

produce intellectual and rhetorical labor like that of a human writer. Given the uncertainty this new technology provokes, top news outlets are running headlines about its future in replacing human expertise such as “Could ChatGPT be your Child’s Next Tutor? AI Experts, Politicians Weigh In.”[34] Some articles compare ChatGPT to human experts with titles like “Abstracts written by ChatGPT fool scientists.”[35] With human intelligence and expertise in direct conversation with ChatGPT’s novel abilities, I take an interest in how discourse about generative AI imagines rhetorical ability in emergent technologies. This chapter will investigate how public intellectuals and organizations concerned with the future of humanity characterize the relationship between generative AI and rhetorical expertise, ultimately shaping cultural ideals of intelligence through the values of corporate culture.

Conclusion

When taken together, these case studies illuminate common themes in imaginaries of artificial intelligence and its use in communication practices. My conclusion will attend to these similarities, answer my research questions, and outline directions for future research. In the process of examining imaginaries of AI and its many uses, I critique utilitarian understandings of AI and communication education. Ultimately, I forward the idea and ongoing question of the rhetoric of (mis)use to consider communication beyond its perceived utility.

CHAPTER ONE

Aural Intelligence: Technologies of Speech and the Enchanted Determinism of Self-Improvement

Over a decade ago, a computationally powered public speaking evaluation system was a hypothetical Carolyn Miller posed to college instructors to explore the debate about rhetorical agency.[36] This thought experiment is now a reality with hundreds of thousands of users eager to receive feedback on their public speaking from an AI-powered app. Within the past four years, apps promising to improve speaking skills proliferated across the App Store's productivity and education categories. Some were designed to help English learners gain confidence in their speaking and pronunciation. For example, the Japanese-owned app *Shadowing* has users engage in a Progymnasmata-style imitatio to teach English speaking by imitating Barack Obama's final state of the union speech. Other apps without an explicit focus on English language learners, such as *Speeko*, use artificial intelligence tools to evaluate factors such as pacing, intonation, and word choice.

Among these options, *Orai* appears to reign supreme in the public speaking app market with over 300,000 users, millions of speeches analyzed by their technology, and $2.3 million in startup funding.[37] The founders of *Orai*, Danish Dhamani and Paritosh Gupta, are South Asian immigrants who developed the app after facing their own fears with public speaking. As they explain on their website, their four-year-old app offers an "AI Speech Coach App In Your Pocket" that allows you to "practice your presentations and speeches in private without any embarrassment."[38] They use artificial intelligence tools to assess recordings of your voice, and occasionally your facial expressions, by measuring elements such as perceived energy and confidence. For $10 a month, users can engage with guided practices and track their progress

over time. This subscription service can be used for individual self-improvement, but *Orai* also offers custom pricing for companies that want their employees to use their application.

Both the website and the application itself lack precise details about what makes their artificial intelligence equipped to evaluate speech or even how it provides feedback. Their website claims they worked with speech coaches to develop interactive lessons and describes their curriculum as customized to user's needs.[39] The lack of details about their use of artificial intelligence is concerning given that even the best speech-recognition technologies regularly perpetuate racial and gender bias.[40]

What is left unsaid about this application is equally as interesting as what is explained in detail. The app's evaluation system assigns percentage scores to aspects of your vocal performance, such as how many filler words you use in a particular recording. They also provide data visualizations and quantifications of factors like pacing. In short, the elements of public speaking *Orai* considers are familiar to Communication and rhetoric teacher-scholars, but the means for evaluation and improvement are distinctly unfamiliar.

Rhetorical studies, particularly within Communication, is constantly considering and reconsidering what constitutes effective public speaking. *Orai* does not claim to replace educators in this area, but it does introduce a novel set of questions for what it means to receive, measure, and teach speech. It would be shortsighted of me to insist that technological determinism dooms our sacred rhetorical traditions or act as if human speech instructors are without their flaws and biases. My purpose here is not to assess whether people should use this product. Instead, it seems far more productive to ask how and why users treat *Orai* as a competent audience for their speeches. Furthermore, what are the broader cultural impacts of a society that increasingly entrusts AI with complex tasks?

Recent and ongoing conversations in rhetoric and technology interrogate the shifting role and designation of audiences in the digital world. For instance, Michelle Gibbons describes the way web texts are crafted to appeal to algorithmic preferences as persona 4.0.[41] Public speech, however, is severely underexplored as a medium that is directed towards, subjected to, and altered by technological apparatuses. Unlike digital texts that circulate at the will of algorithms, oration is not typically subjected to or dependent on the judgement of computational systems. How are over 300,000 people convinced to download an app powered by artificial intelligence to improve their public speaking?

This chapter takes up *Orai* as a multi-dimensional text to investigate the discursive contours that extend artificial intelligence's knowledge to a complex task like public speaking. I put Alexander Campolo and Kate Crawford's concept of enchanted determinism in conversation with rhetorical studies of technology to develop a comprehensive theoretical approach to artificially intelligent speaking instruction. I read the app's interfaces, reviews of the app from users, *Orai's* website, and public statements from the creators as a collective text encompassing the prismatic nature of *Orai*. Through this reading, I identify how this text renders public speaking instruction as a task suitable for artificial intelligence through enchanting instruction, determinant assessment, and technologies of you. AI is posited as an appropriate method for complex and abstract tasks through an enchanted determinism of self-improvement rather than a claim to ethos. This narrative of advancement holds practical and theoretical implications for teachers and scholars of public speaking, critical scholars of technology, and the speakers who become data points in the app's system.

A Rhetorical History of Artificial Intelligence

When Miller imagined an artificially intelligent evaluation system for speeches, she demonstrated how the mutual attribution of rhetorical capacity between speakers and audiences

forms what we come to know as agency. Our positionality can be part of what determines our willingness to attribute agency to a novel force, such as computational systems. Many of us who teach public speaking are culturally and economically positioned to deny agency to machines in this particular situation, especially if the machines threaten to substitute for our own agency. Others, like educational administrators, are culturally and economically positioned to welcome mechanized agency, to posit an agent function that will position the machine as an adequate reader of placement essays, for example.[42]

Job security for communication professors and administrative cost savings are not the primary motivators of debate over *Orai* though. Miller's hypothetical speech grading machine was placed in the context of higher education whereas *Orai* is primarily marketed and used as a product for individual self-improvement beyond the classroom. Unlike an educational administrator who might benefit from the efficiency or monetary savings that come with these systems, the users of this app are paying a monthly fee to use *Orai* they may or may not have used to pay a human consultant.

Organizational adaptations of artificial intelligence systems can come with different rationales than individuals who attribute agency to machines for self-improvement. Companies often utilize neoliberal ideals specific to technology to advertise their products. Damien Smith-Pfister's work on Google Glass, for instance, illustrates that technologies made for individual consumers often promise to better their lives through stronger civic engagement and connection to others.[43] But the promise of communitarianism is belied by the reality of what the technology offers. Glittering visions of humans enhanced and empowered uniquely by the affordances of contemporary technology are what Pfister calls technoliberalism. Put a different way, "technoliberalism intensifies neoliberalism through computational power."[44]

Artificial intelligence often quietly amplifies neoliberalism because, as Kate Crawford argues, it "is narrowly understood as disembodied intelligence, removed from any relation to the material world."[45] Neoliberal ideas embedded in immaterial things can be harder to discern because the lack of a clear object and mystery surrounding its processes give way to speculation and the search for some kind of expertise about this strange, uncapturable concept. However, removal from the material world does not equate to separation from humanity. In fact, there is a tendency to characterize artificial intelligence as capable of human-like actions and intelligence. As M.C. Elish and dana boyd explain, in cultural imaginaries of machine learning "data are 'fed' to a computer and [it] 'digests' information and machines 'learn' and 'think.'" As a result of this emergent attitude, the question "is not so much that we are willing to attribute agency to non-human entities, but rather, what kinds of agency and with what expectations do such attributions emerge?"[46]

If we understand agency as an exchange of attributed capacity, then what exchange of attributed capacity is thought to happen when users record a speech for an AI-based evaluation system? Science, technology, and society studies scholars Alexander Campolo and Kate Crawford give us a way into thinking about this through their explication of enchanted determinism. Enchanted determinism is when discourse about AI "characterizes these systems as magical, appealing to mysterious forces and superhuman power."[47] This mythologization obscures both the material consequences of AI and the statistical processes it uses to produce outcomes. They contend that AI is truly disenchanted modernity in that it relies on empiricism, but it is continually presented as an enchanted entity with autonomous intelligence. In other words, AI is like a math equation that is sometimes used to judge something like a painting. If

that statistical process is cloaked in mystery and mythology, we are less likely to question its application to situations that evade empirical measurements.

Public speaking is an exceedingly complicated action that is difficult to measure. Since the inception of speech education, teachers have struggled to determine a universal standard for evaluating public speaking. Nearly a century ago around the time of the speech hygiene movement, Ruth Klein and William Lamers argued that we lack an objective standard for what constitutes excellent public speaking because that is contingent on the audience. Therefore, "to be effective teachers we must strive to develop in our students a vivid sense of average audiences."[48] *Orai's* AI system appears to be the primary and often the only audience for users' speeches. Without much public transparency about what datasets are being used to train that AI or how it comes to decisions when assessing public speeches, it is unclear if this AI constitutes the average audience.

Orai's Measurement of Orations

What is clear is that public speaking is a deeply contextual and interactive task. Typically, such a nuanced act would require the assessment of an instructor who establishes a claim to knowledge on the subject. In *Orai*, however, an explanation of why AI is qualified to judge speech, or even how it does so, is noticeably absent from its public-facing materials.

Within the application, *Orai* consists mostly of guided exercises organized under courses such as "Concise Communication" and "Confident Communication." Each course will have several short exercises that typically end in the user recording their voice as they respond to a speech prompt. Several months into the subscription, users may also be asked to record a video of their face while speaking to support a facial recognition analysis of their speech. The prompts vary from questions about the user's opinions to pre-written scripts for them to read out loud.

After the user records a speech that lasts more than thirty seconds, the AI will process their voice and provide percentage-based feedback. Depending on the exercise, users will receive a score for factors like confidence, conciseness, filler words, pace, and/or facial expressions.

This close reading investigates why *Orai* finds success with this approach by examining the app itself and the various intertextual materials that surround it. This approach is partially inspired by Anne Demo's investigation of autism apps where she highlights the importance of multiple stakeholders and texts in formulating an ecosystem of agency around autism.[49] Unlike previous rhetorical work on mobile apps that describes the app's capabilities, I place myself directly into this reading as an embodied user engaging in *Orai's* public speaking instruction. Demo's study largely focused on the app's affordances, but I turn my focus to how those affordances are experienced and embodied. The months I spent using this app as a white disabled woman who speaks English as a first language with a midwestern accent are an integral part of this reading. The reception of other users and public texts surrounding this experience help me form a holistic understanding of the application. I put this multi-dimensional text in conversation with scholarship on technology and rhetoric to demonstrate how *Orai* is attributed agency through enchanting instruction, determinant assessment, and technologies of you.

Enchanting Instruction

In his account of machinic rhetoric, Miles C. Coleman argues that we need an alternative to "the all-too-tired and altogether uninteresting claim that a machine is persuasive when it 'reminds us of humans.' It may also be the case that a machine is persuasive precisely because it moves with the ethos of a machine."[50] Indeed, part of *Orai's* enchantment is that the AI system evaluating users' speeches is represented by an avatar that is a distinctly nonhuman animated parrot. The actual process *Orai* goes through when evaluating the user's speech is not explained

but visualized with a loading screen of the parrot watching images on a laptop. Below the animation it reads “Great job! I’m getting your results!” The parrot smiles and appears to be typing on the laptop with its wings as images of little scissors and stars flash across the laptop screen. This visualization shows a kind of “brilliant but mysterious” process used to assign a score to your speech.[51] There is some kind of attributed capacity represented through this parrot that appears to take time and effort evaluating the speech, but we do not know how it processes those evaluations.

In my experience using the app, and apparently the experience of many people who reviewed the app, the AI often fails to process my speech performance at all.[52] When this happens, the colorful parrot appears on the screen with a frown, its head slightly tilted to the side. A small written statement beneath the bird will often read something like “It sounds like you did not follow the transcript. Make sure you are in a quiet place and try to imitate the speaker.” When I successfully complete exercises the parrot closes its eyes, smiles, and lifts its wings in the air. The text often tells me “Nice job!” These affirmations directed at the user and disclosures of the AI’s failure to hear the speaker are yet another moment where the parrot facilitates a communicative exchange between the user and the unseen machine. Notably, the error messages do not acknowledge the AI’s failure as an audience member and instructor. Such an admission might disrupt a narrative of enchantment that involves “both mystical yet profoundly accurate predictive engines.”[53] Rather, it is suggested that the speaker has somehow failed to follow instructions or cater to the noise-detection needs of the machine lurking behind the interface.

The parrot also mimics the activity users are asked to partake in, such as listening to a recording. Sometimes the parrot even dons a costume to represent a speech prompt. For

example, the parrot wears a superhero outfit while introducing a prompt on superhero powers. This parrot may not directly enact a mythos in a spiritual sense, but it develops a mythic character that obscures the actual function of the app's AI. The encouraging bird takes on the abstract task of teaching and assessing public speaking instead of a human-like or robotic representation of the AI. Perhaps this is because, as Elish and boyd argue in their work on IBM's Watson, the computer intelligence that was mythologically constructed "effectively became a character, certainly not human, but also somehow more than simply a machine."[54]

The parrot, a nonhuman animal that is capable of speech, appears to be well-liked among users who left reviews. One user who left the app a negative review for using liberal political speeches from Democrats noted that "the only thing I like is the parrot, it's so cute."[55] Perhaps that cuteness effectively distracts from the mystery surrounding the AI's procedure.

Determinant Assessment

The procedure may be unknown, but *Orai's* evaluation of public speaking claims to know how good your performance was with percentages (with one hundred percent being the highest possible score). Users are scored for factors such as pacing, conciseness, and confidence in ways that are sometimes unrelated to the assigned exercise. For instance, *Orai's* lesson on effective storytelling gives examples of famous speakers telling stories and outlines a general structure users can use to organize their stories. In some regards, this part of the curriculum is not all too different from how a college public speaking course might instruct students on the topic. The evaluation of the user's storytelling ability, on the other hand, relies entirely on quantifiable data produced by voice-recognition technology. The scoring system uses the same categories (pace, filler, confidence, and conciseness) it does for most of the exercises in the app to measure a recording of the user telling a story. The personalized advice it generates at the

bottom of the screen is entirely dependent on this quantified report rather than the topic of the lesson. This prompts questions about why the app would focus on certain topics and lessons to begin with if they are irrelevant to the evaluation process. Is the content of what we say of any importance in determining excellent public speaking? The app's evaluation system appears to treat data regarding vocal affect as a more important determinant than the language we use while speaking.

In short, the lesson that aims to teach users how to tell an effective story does not measure the act of storytelling through tone variation or content. Instead it quantifies observable patterns in speech data to generate a score that supposedly tells users how to improve their public speaking. As a result, these evaluations imply there is a perfect (or 100% scored) speech that ought to be strived towards, and that pace, lack of fillers, confidence, and conciseness are the measures of that perfection.

In her writing on technology and ethos, Carolyn Miller posits that the presumed objectivity of technological processes leaves us with deterministic outcomes that often go unquestioned. She writes, "if we believe that our relationship with the world is objective, that the external world determines our knowledge of it, then the concept of ethos evaporates—there can be no character to our knowledge or action, other than the idiosyncratic or the mistaken."[56] This evaporation of ethos or sense of accountability, according to Campolo and Crawford, leads to a world where the larger implications and impacts of AI remain invisible.[57] With *Orai,* users might take a percentage score seriously even if it does not actually measure the bigger exercise at hand. Orai lacks a sense of kairos, one of the most important concept that rhetoricians teach.

The app also lacks transparency about what informs its vision of perfected speech, so we are only left to guess what factors are being used to measure vaguely conceived areas such as

confidence. The mystique, or black box, surrounding these acts of quantification is part of what reinforces assumptions about the neutrality of computational tools.[58]

However, there are a few moments where the veil is lifted and users are momentarily invited to see precisely what *Orai* is measuring. In a course on imitation, the app operationalizes a Progymnasmata activity by having users mimic a speech from former U.S. president John F. Kennedy. The AI measures how closely a recording of the user's voice reading an excerpt from his 1961 inauguration speech matches Kennedy's. Then, a percentage is assigned based on how much the user's voice matched his, particularly in regard to the length of dramatic pauses.

Once again, the logic of quantification that necessitates right and wrong outcomes works towards an idealized vision of speech. A white heterosexual nondisabled cisgender male president with a Boston Brahmin accent is held up as a standard to not only be mimicked but evaluated on. In addition to this limited conception of the perfect speaker, the app's invocation of "accuracy" as a suitable metric of good public speaking results in a troubling binary. If speaking publicly can only be understood on a spectrum of accuracy and inaccuracy, then little room is left for a variety of communication styles. In other words, successful public speaking is envisioned as a linear and one-dimensional possibility with little variation.

Orai is far from the first to try to fit speech acts into a manageable set of predetermined labels. This logic of assessment has some similarities with the motivations of the speech hygiene movement within early speech education. As Pat Gehrke writes in his historical account of the field, "the primacy of scientific methods and the interest in making speech an applied psychology fostered" an approach to public speaking instruction as the sanitation of undesirable speech in the 1920s and 1930s.[59] This framework degraded students under the supposedly therapeutic function of an education designed to fix them. Joshua Gunn recounts this history,

imagining the speech hygiene classroom as particularly modern because of its "precision and speed, the characteristics of a machine."[60] How ironic that an actual machine system would go on to measure speech with precise percentages nearly a century after the speech hygiene movement. *Orai* might not explicitly insist that supposedly bad speech ought to be pathologized and treated, but the deterministic logic of its AI-based evaluation is awfully familiar.

As Campolo and Crawford explain, AI systems continually mask their modern nature through enchantment, but beneath that mask, "they certainly embody aspects of a disenchanted world in that they work to master or control new domains of social life through technical forms of calculation."[61] Mastery and control, in the case of *Orai*, is something that is also promised to users who invest in their product.

Some users reflected this logic in their own reviews of the app. Many reviews, especially on the Google Play store, indicated that they were non-native English speakers using the app to improve their English speaking skills. One reviewer who identified themselves as such wrote, "the way I was speaking earlier was totally wrong and *Orai* has helped me tremendously to improve it gradually."[62] Individual users like this one may feel empowered by the app and my intention is not to criticize them, but the cultural forces that lead people to believe their speaking is "totally wrong" and needs correction is unsettling. Deterministic ways of thinking can lead to a limited binary of right and wrong speech that excludes voices marked as "other."

Indeed, some reviewers reported feeling excluded and less empowered, writing low-star reviews such as "not for non native speaker."[63] *Orai* occasionally responds to low-star reviews with assurances of updates or suggestions on how to make the app work more effectively, but they did not respond to this one denoting the app's exclusion. They do, however, appear to frequently respond to people who complain about accuracy and technical errors. As one user

wrote ": -Analyzer tells me I'm speaking with too much energy, but next sentence tells me I'm monotone. -Analyzer tells me I speak too fast, but next sentence say I spoke especially slowly" only to be met with a response from *Orai* that suggested "background noise and placement of the phone can also affect the accuracy of our algorithms. Can you give it another try in a quiet environment and let us know if it's any better?"[64]

Yet again, the unintelligence of this artificial intelligence system is not even acknowledged as a possibility. Instead, it is implied that it must be the failure of the speaker to properly cater to its AI-based audience. If the narrative continues to assume that the system is accurate without question, then the only burden of proof *Orai* faces is that it can provide consumers with that special something they need.

Technologies of You

Perhaps that special something is the personalization promised by the app. *Orai* has successfully convinced over 300,000 people to download their app with the invocation of an "AI Speech Coach App In Your Pocket" that produces personalized data analytics and curriculum tailored to users' individual needs.[65] In exchange for users' data and a monthly fee, they are promised that they can learn more about themselves and improve their presentation skills as a result.

Beyond *Orai*, the information age is rife with persuasive appeals to hand over our personal data to receive more information about ourselves. For instance, Cambridge Analytica gathered Facebook data on over 200 million Americans during the 2016 election by getting users to click on quizzes that purportedly told them something about themselves by analyzing their data.[66] Even early personality quizzes developed before the first computer became popular, circulated among people who wanted to learn more about themselves or the workers that they

oversaw. Despite a lack of grounding in psychological or scientific research, personality tests such as Myers-Briggs became a standard for understanding ourselves and even making decisions about who was best suited for a particular job.[67]

Across time, a clear pattern emerges among apps that want information about their users but may lack an ethos sufficient to extract that information. By ensuring they will learn more about who they are in a uniquely personalized process, these apps persuade users to give away personal data, money, and other items of value. Without many details on the website about the AI being used or speech consultants employed, *Orai* promises to tell users more about themselves than the product they are using. The website highlights the benefits of using the app with assurances like "move up your career ladder" and "track your progress."[68]

The CEO's Ted Talk on the company reinforces that this better version of yourself can be uniquely achieved through AI-based tools. When explaining the initial motivations for his company, he says "we believe that we can use technology to help people become better versions of ourselves."[69] This is not an unusual claim, as Pfister and Misti Yang explain, tech companies regularly invoke this idea of personal enhancement made uniquely possible by technology.[70] In this particular case, the focus on the particular user's abilities and fears glosses over the mystery of the app's instructional capabilities and processes.

Not only does the app promise to provide personalized feedback, it also claims to uniquely work for your lifestyle in a way traditional public speaking coaching or instruction does not. According to their website, the app allows you to "practice your presentations and speeches in private without any embarrassment."[71] It works with your schedule because, as its description on the app store reads, "*Orai* allows you to record anytime anywhere so if you can't make it to the toastmasters meeting or if you are feeling nervous 20 mins before your

presentation (sic). Just open *Orai* and practice your speech!"[72] Across these various persuasive cases for downloading *Orai,* we are met with claims that this platform can do something special for you and your lifestyle because of the affordances of technology.

The exercises within the app even claim to tell users what emotions they are expressing to others with facial recognition technology. I participated in one activity that prompted me to imagine I was on a first date with someone named Taylor. The parrot wore a formal tie while the text read "Goal: Connect with your date by showing sincerity and positivity." I had to agree to allow *Orai* access to my camera and the ability to obtain video recordings of my face in exchange for feedback on my emotional affect. In the evaluation score, I was assigned an emotion based on how the system perceived my face.

When I went to the score for more details, I was met with a play by play of how each of my facial expressions were perceived by the AI. The recording of my face played as a meter showed whether the AI perceived it as a happy, neutral, or unhappy expression. This range of emotions was used to give feedback on an exercise focused on conveying sincerity and positivity. Not only are these parameters limited, but the AI had a questionable perception of my emotions. As shown in the image below, I was sometimes perceived as happy when I was making a strange face on purpose.

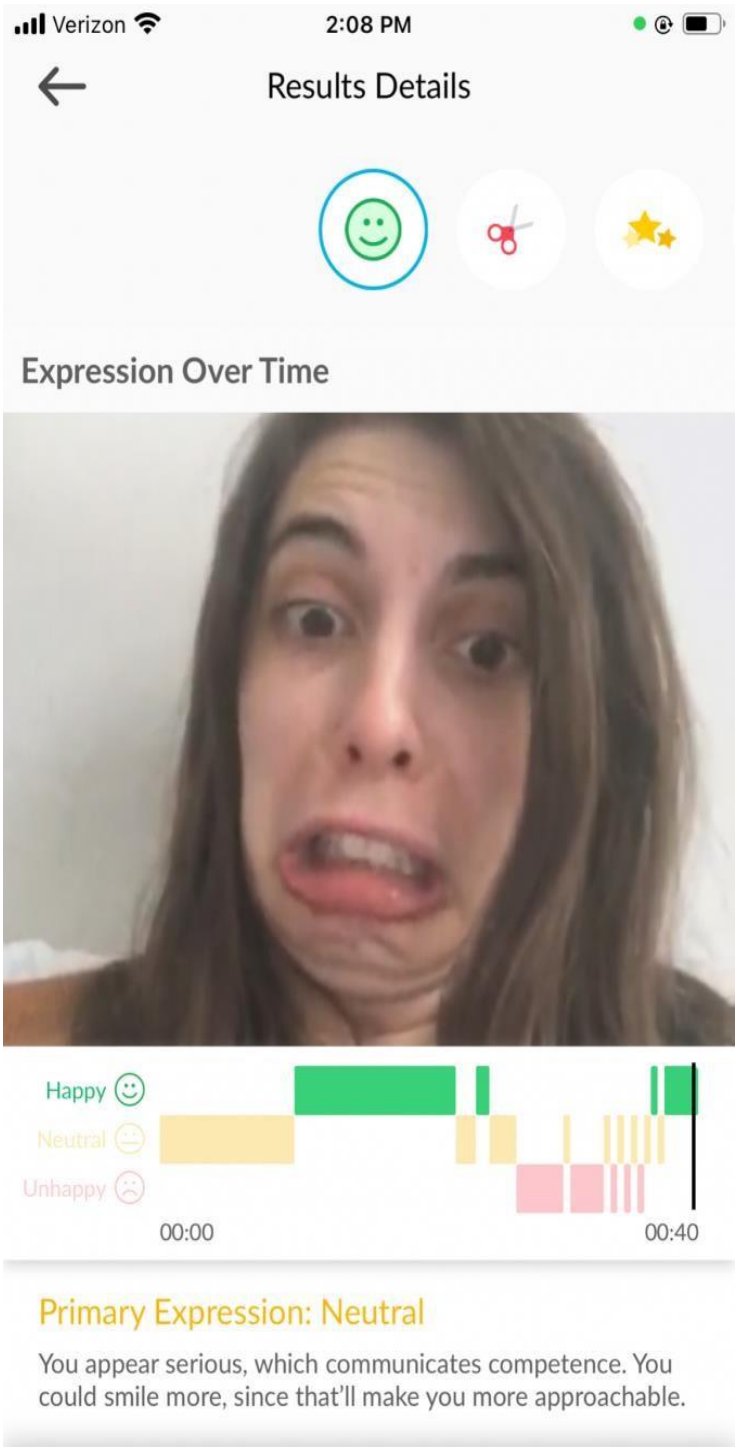

Figure 1: Screenshot obtained by author.

This emotion meter also gave me general feedback on my overall score. My face was perceived to be neutral and serious so it was suggested that I should smile more. Beyond the troubling

implications of telling women to smile more, it was particularly interesting that the app suggested that taking its advice would make me more approachable.

The supposed personalization of *Orai* may be a strategy to overcome perceptions of machine judgements as cookie-cutter, cold, or made for the masses. Between claims about a machine made for the individual and the enchanting presence of a parrot character, the app effectively creates a greater sense of intimacy and understanding with the user. The app characterizes this machine that can listen to what you have to say and give specific feedback as a more human-like interaction, like a conversation with a private tutor.

Orai frequently alludes to career mobility and freedom from fear made possible by their app. Now, another possibility of being more approachable on a first date and therefore more romantically desirable is somehow bestowed by the artificially intelligent instructor and audience member. Whether or not this is actually true, it provides users with a reason to give *Orai* camera permissions for personal benefit. By claiming to tell users something about the way their facial expressions appear to others, they are convinced to hand the app over more personal data.

However, these exchanges of personal data may or may not be met with accurate feedback for every user. Much like speech-recognition tools, facial recognition technologies are often riddled with racial and gender bias.[73] Even if *Orai* were a hypothetically bias-free machine, AI that claims to detect emotional expressions is often based on widely criticized and culturally uninformed ideas on the universality of emotions.[74] In short, the technologies of you that promise users more information about themselves for the price of their data may not be able to deliver that promise for everyone.

Speaking Truth to AI Truth-Claims

My purpose here is not to encourage apocalyptic attitudes about innovative approaches to public speaking or imply that human instructors are completely perfect evaluators free of bias. On the contrary, I welcome generative conversations about how to create more inclusive and engaging communication instruction. Part of that conversation involves a series of questions about what a novel approach is being implemented for and for whom. What underlying ideas and substance characterizes that innovation?

Although public speaking is typically recognized as an act of communication between human beings, the app consistently appeals to the idea that practicing speaking for other human beings can be embarrassing. They posit that AI provides a desirable opportunity to practice in private and on the go. This may be helpful for individual people and might even improve their public speaking skills through consistent practice, but the logic behind these evaluations and the representation of them reflects troubling notions about public speech. To borrow from Crawford's writing on facial recognition technology, this statistically-modeled audience for public speech reflects "the desire to oversimplify what is stubbornly complex so that it can be easily computed, and packaged for the market."[75]

Orai is primarily a self-improvement app, but its mysterious AI processes are already generating scores that could have consequences. Not only do they fail to disclose what is being done with the millions of speech and facial data points they are collecting, but the company's website invites corporate teams to schedule a demo that would allow them to "track your entire team's improvement."[76] This ability to "monitor" employees' public speaking skill development includes "leaderboards" that rank the top performers on a team.[77]

I will not make generalizations about every user's experience using the app, but I can speak to how my experience and some of those expressed in the app's reviews reinforce why

this kind of ranking would be troubling. My experience using the app for months, paired with dozens of reviews that complained about the accuracy of the app, indicates that the AI used to come to these decisions cannot even recognize users as speakers at times. The recordings of my voice are regularly met with error messages that tell me I must not be following the exercise correctly or that I need to move to a quieter space. If the app does not register every voice as capable of rhetorical performance then an uneven distribution of agency is being applied not only to self-improvement exercises, but to a ranking system in the workplace. Miller writes in her landmark essay on agency that empowering subaltern groups involves "enabling and encouraging attributions of agency to them by those with whom they interact and accepting such attributions from them."[78] Whenever shiny automated processes are introduced into novel domains we have to ask who those machines can recognize and therefore attribute agency to.

Resolving bias through more accurate systems that detect a greater variety of speech acts is certainly one step towards more evenly distributed attribution. However, we are still left with questions about why AI is used to evaluate public speaking in the first place. Applying computational logic to speech acts effectively changes ideas of what excellent public speaking is and how it can be achieved. The context-dependent nature of public speaking may frustrate speakers and students looking for the closed-ended result percentage score feedback brings. This desire for simplicity might be part of what results in the attribution of agency to *Orai's* enchanted machinery. Nevertheless, counting filler words and imitating white male presidents to perfection narrows our vision of what constitutes a good speech performance. As Miller writes in her work on ethos, "the discourse demanded by and generated by a closed conceptual system not only precludes discovery and change but effectively equates logic with rhetoric. Logical form suffices for rhetorical substance"[79]

In other words, AI systems are unquestionably applied to complex social phenomena not only in spite of but also very much because, as Campolo and Crawford write, they participate in the "epistemological 'flattening' of complex social contexts into clean 'signal.'"[80] If giving a successful speech is only a matter of measuring how many times you say "um," how fast you speak, or if a computer thinks you are smiling, then we lose sight of the need to engage with audiences that do not count our utterances.

The enchanting and deterministic qualities of *Orai* encourage users to attribute agency to a system that may or may not be able to return it depending on the characteristics of their voice and at times, their faces. What is particularly interesting in this case study of enchanted determinism is how this vision of technology that is tailored to you and your lifestyle is evoked instead of a claim to expert teacherly ethos. With this promise of an improved version of themselves, hundreds of thousands of users have agreed to the app's policies that allow *Orai* to collect recordings of their speech data. There appears to be no public record of what is or will be done with that data, so we can only speculate, but the exchange encouraged by persuasive arguments about personalization is intriguing in itself. The app does not need to explain how its AI works, but the user needs to pay it a monthly fee and give it personal data. Whether or not they actually improve their speaking, this kind of relationship where users are actually the ones being used raises important questions about agentive exchanges with contemporary technology. Is it possible to be a user attributed with rhetorical capacity while simultaneously being used for our data, money, or other purposes? The kind of listening *Orai* does as an audience member and evaluator also involves a consumption of our personal data for undisclosed reasons. As a result, we are left asking if consuming aspects of the speaker is the role of audiences and/or evaluators.

This chapter argues that discourses of enchanted determinism do not only mythologize technologies and obscure their epistemologies, they also claim to give us something while quietly taking pieces of ourselves from us. In this case, technologies of speech do not need to reassure users that there is some kind of merit in counting speech acts because they do not have to. Users of the technology appear to assume such quantification is meaningful.

Automating speech evaluation might be thought of as a response to the fear of a proximate, intimate, and fully engaged audience that can truly judge us. However, I challenge us to rethink the fear of public speaking, and by extension our capable audience, as something that does not need to be "overcome."[81] The widespread fear of public speaking or a lack of communication skills is not the problem at hand. Rather, our desire to "fix" how we communicate is what drives us into the categories, percentages, and computer-generated scores that will never capture the complexity of human speech.

CHAPTER TWO

Emotional Intelligence: Imagining and Embodying Social Development

Artificial Intelligence is increasingly applied to important aspects of human life and child development is no exception. AI powered toys, also called smart toys, boast their unique ability to hear and communicate with children while simultaneously feeding their data to third party companies.[82] Many of these devices claim to give children skills they would typically learn while interacting with other humans. Toys that use speech recognition to collect vocal data prompt a variety of considerations for scholars of Science, Technology, and Society. Among the many technical and ethical questions we could ask about these creations, the most interesting to rhetoricians may involve how artificial intelligence is framed as a source of interpersonal communication for children.

Despite their invasive potential, these devices continue to gain traction in the market for childhood development and even receive awards for innovation in toy making.[83] There are several robot toys that claim to help children learn science, language, and other academic subjects.[84] Among the many smart toys available, Moxie from Embodied Incorporated offers a particularly rich case study for scholars of rhetoric because it claims to be a communicator that teaches social and emotional skills to children.[85] For instance, the company's website claims that Moxie can help kids "learn emotion regulation techniques to help address anxiety."[86] We know that AI can sort data and recognize patterns, but what is making consumers believe that it can also perform distinctively human tasks involving complex emotions?

Embodied Incorporated is aptly named because many of the persuasive appeals for Moxie's emotional and social ability occurs through embodied rhetoric. A. Abby Knoblauch describes embodied rhetoric as "the purposeful effort by an author to represent aspects of

embodiment within the text he or she is shaping."[87] In this case, we might think of the company and its designers as the authors of Moxie, a robot that mimics human embodiment through facial expressions and movement. I argue that Moxie's embodied rhetoric, often amplified by promotional web texts and videos, showcases qualities similar, but not too similar, to human communication that expand imaginaries of AI's capabilities. At the same time, these imaginaries of empathetic machines can further idealize normative emotional expressions and social interactions.

Literature Review

It is crucial to understand existing rhetorical examinations of the human body before we can even begin to consider the rhetoric and body of a machine. Across the humanities, critical theories of the body often focus on human bodies and their relationship to power structures. When discussing sexuality and the body, Michel Foucault argues "power tries as best it can to dominate" sexuality, and thus the bodies through which sexuality is enacted.[88] The body's meanings are intertwined with power, but the body itself is often misunderstood as a neutral and natural surface, obscuring the way it has been culturally inscribed. Reading sexual, racial, and gender differences as biological essentialisms of bodies is part of what leads them to be relegated to abjection.[89] In actuality, the body is not some kind of fixed fleshy reality. As Elizabeth Grosz writes, "Bodies speak, without necessarily talking, because they come coded with and as signs. They speak social codes."[90] And those codes are not unambiguous. Embodiment is a flexible concept and practice. Although violence is frequently inflicted on bodies to discipline them, some people engage in resistance to power structures by embracing unruly or stigmatized forms of embodiment.[91] The bodies that are typically read as unruly and as a site for rhetorical inquiry are often "not white, cisgender, able-bodied, heterosexual, and male."[92]

Thus far, studies about technology and the body typically focus on how technology acts upon human bodies. More specifically, Foucault's concept of biopower refers to the transference of power into technologies that come to govern the social and scientific alike. Biopower takes on strategies to maintain power and keep its form unknown.[93] Technologies, in this case, could refer to many types of tools, structures, or items. The concept of biopower appears in several locations throughout Foucault's work but is particularly relevant to the materialization of power upon bodies. In *Discipline & Punish*, Foucault articulates a relationship between biopower and bodies by explaining how "the body is also directly involved in a political field; power relations have an immediate hold upon it; they invest it, mark it, train it, torture it, force it to carry out tasks, to perform ceremonies, to emit signs."[94] In this political field, technology frequently acts as an oppressive force on the human body.

Whether facilitated by machines or not, the detachment of the body from the self is also a prevalent theme in popular discourses about bodies. Cartesian dualism, or the separation of the body and mind, involves a regard for the body as something apart from us. Disabled feminist writers such as Nancy Mairs regularly oppose this separation because it undermines the role of bodies in experience.[95] At the same time, Robin Kelley worries that bodies, particularly phrases like Black bodies, "increasingly stand in for actual people with names, experiences, dreams, and desires."[96] Herein lies the challenge of producing a responsible rhetoric of corporeality that recognizes the importance of flesh without reducing people to mere flesh. We are both bodies and selves, material beings and somehow something more.

Bodies are inextricably tied to humanity and both concepts lack an absolute form. Neither bodies nor humanity can be understood as blank canvases for meaning or remain stuck in a dichotomy of nature and culture.[97] Because "inscription models can reduce the body to a

discursive effect," we must take care to consider the body's materiality as well.[98] But how to do that is not always clear.

Many posthumanist scholars study how rhetoric occurs beyond human beings, but some warn that certain posthumanist and object-oriented approaches "risk reinscribing a privileged position that allows one to minimize the body - its agencies, variances, e/affects - by placing it on an immanent plane with all other objects."[99] The struggle to properly address the human body lies in the attempt to regard the body as co-constituted rather than purely biological or wholly determined by the social. There is a complex, but necessary move to not reduce people to their biological bodies, but to recognize their materiality while also highlighting the rhetorical weight of our culturally constructed selves.

Much could be said about the potential of posthumanism or feminist new materialisms as fields to unpack the being of non-human bodies like Moxie, but this chapter is less concerned with ontology than with how AI is designed and marketed by humans to mimic aspects of human embodiment. I am not trying to establish what Moxie *is*, as much as I am trying to understand how we think about ourselves when constructing human-like machines. I am also interested in how Moxie's embodiment is very unlike a human at times. The designers may have strategically chosen to adopt some human-like functions and not others, which can tell us a lot about how ideal human communication is being conceptualized. I read these interfaces and design choices like a more traditional text, such as a speech or visual advertisement, produced by a human rhetor and revealing something about what that rhetor thinks and how that rhetor wants others to act.

Literature on robots in popular culture and real life regularly highlight how anthropomorphism plays a key role in the representation of these devices.[100] Many argue that

fictional robots stand in for historical forms subjugation, slavery, and servitude, making parallels between robots and humans necessary to the emotional thrust of the narrative.[101] On the other hand, some argue the cultural fascination with robots has less to do with their resemblance to humans than what makes them unique, such as their perfect memory and tireless listening capacity. In his work on the persuasive potential of machines, Miles C. Coleman argues that Machinic rhetoric offers a new response to the all-too-tired and altogether-uninteresting claim that a machine is persuasive when it "reminds us of humans." Recall from Chapter 1 Coleman's point that it may also be the case that a machine is persuasive precisely because it moves with the ethos of a machine.[102]

While Moxie certainly has human-like features that I argue contribute to the emotional impact of its presentation, Coleman's machinic rhetoric offers some inspiration for examining the aspects of Moxie's embodiment that are distinctly different from humans. Moxie's website regularly touts its unique data collection and surveillance capabilities, and the bodily movements and appearances of the machine are both connected and disconnected from its status as a human-like interlocutor.

Who is Moxie?

Embodied Incorporated was founded in 2016 in Pasadena, California and employs a variety of technical, medical, and educational professionals.[103] Moxie is not overtly gendered, but it has a face and body that might resemble a small human being. Unlike other AI toys that often teach STEM skills, Moxie's primary purpose is to teach children communication and emotional skills. Some have situated the device as uniquely able to assist children's communication development during the isolation caused by COVID-19.[104] Parents are assured

that Moxie is a high quality choice because it can teach a skill that we lack resources for during a challenging moment.

On their website, Embodied Incorporated includes YouTube videos of the team that built Moxie explaining how it works. In one of these videos, Chief Technology Officer Stefan Scherer explains "Moxie is uniquely positioned to leverage behavioral assessments to objectively and actively assess a child's status and progress in a natural environment."[105] Drawing upon Moxie's ability to measure vocabulary usage, Scherer argues that objective assessment of this aspect of communication is a strong asset for monitoring and advancing child development. The supposed emotional intelligence and linguistic ability of this device are thus directly linked to its quantitative capabilities.

The following sections unpack how embodied rhetoric presents Moxie as a valuable source of interpersonal interactions through its bodily performance as a communicator, teacher, and therapist for children. Then, I expand on how Moxie's surveillance features extend past its physical embodiment and into an app for parents that participates in the datafication of childhood expression.

Communicator

Moxie is regularly touted as competent communicator for human conversation through technical and sensorial rationales. The company's website includes multiple videos of their employees talking about Moxie under a section titled "Frequent questions answered by our experts." Wilson Harron, a Senior Machine Learning Engineer at Embodied, is featured in a video responding to the question, "What makes conversation with Moxie unique?" He begins by offering his name, title, and the number of years he has worked for Embodied. He then goes on

to explain, from a technical perspective, why Moxie is different from other conversational robots.

> Moxie is, like, looking at a user detecting where users are, detecting if a user is engaged. So, this means whether the user is actually speaking to Moxie or not and can separate out conversations from the background from the actual person who is talking to Moxie and this allows for a more focused interaction with Moxie, which is very important for our target population. It's also very cool because it's not just a chat bot, not just a conversation with a computer, but, like, it makes mistakes, and it learns from those mistakes through memory and understanding.[106]

Here, Moxie is separated from the connotations that come with speaking to a computer and promised to be more humanlike in that it makes mistakes and learns. The device is described as looking at and recognizing users, which might be read as the machine equivalent to eye contact. The device is also characterized as giving attention to the individual, focusing on one person out of a crowd, and thus creating an interpersonal relationship. It cares for its user enough to distinguish that actual person from "the background" of other voices that surround it.

A page on the company website entitled "The Science Behind Moxie" offers further explications of how Moxie is uniquely equipped for socialization.

> Powered by our platform, SocialX™, Moxie is able to perceive, process and respond to natural conversation, eye contact, facial expressions and other behavior as well as recognize and recall people, places, and things to create a unique and personalized learning experience for your child. SocialX™ includes cloud-based software, software that is included in the parent App which is downloadable onto a user's phone as well as software downloaded onto the robot Moxie.[107]

Moxie's advanced computation, something that might be thought of as unnatural, is linked to the supposedly more natural components of human conversation. By extending Moxie's sensorial abilities to a platform that could be accessed on a parent app, Moxie is not only a competent communicator because of its conversational abilities, but it can also document its interactions. Moxie's ability to collect and report data on its interactions, something a human instructor may not necessarily be able to do with such fidelity, is posited as a unique advantage for users.

There are other moments where Moxie's machinery is not only acknowledged but situated as uniquely able to communicate in a human-like way despite preconceived ideas about robots. For instance, instead of a blank screen, Moxie has a digital face that can convey expressions and make children laugh. A video advertisement uses this fact to make claims about Moxie's emotional capacity and expression. In the video, Moxie tells a child named Riley that they are excited to hear all about the child's trip to the dentist and the child, perhaps wondering why a robot would care about a visit to the dentist, says "you don't have teeth." The robot puts its mechanical arms up, raises its virtual eyebrows, and grins with its virtual face as it says "but I can still smile." The camera pans back to Riley smiling back at the machine.[108] Moxie's capability to engage in nonverbal communication by coordinating its robot body with its screen face is what allows it to connect with its user in this case.

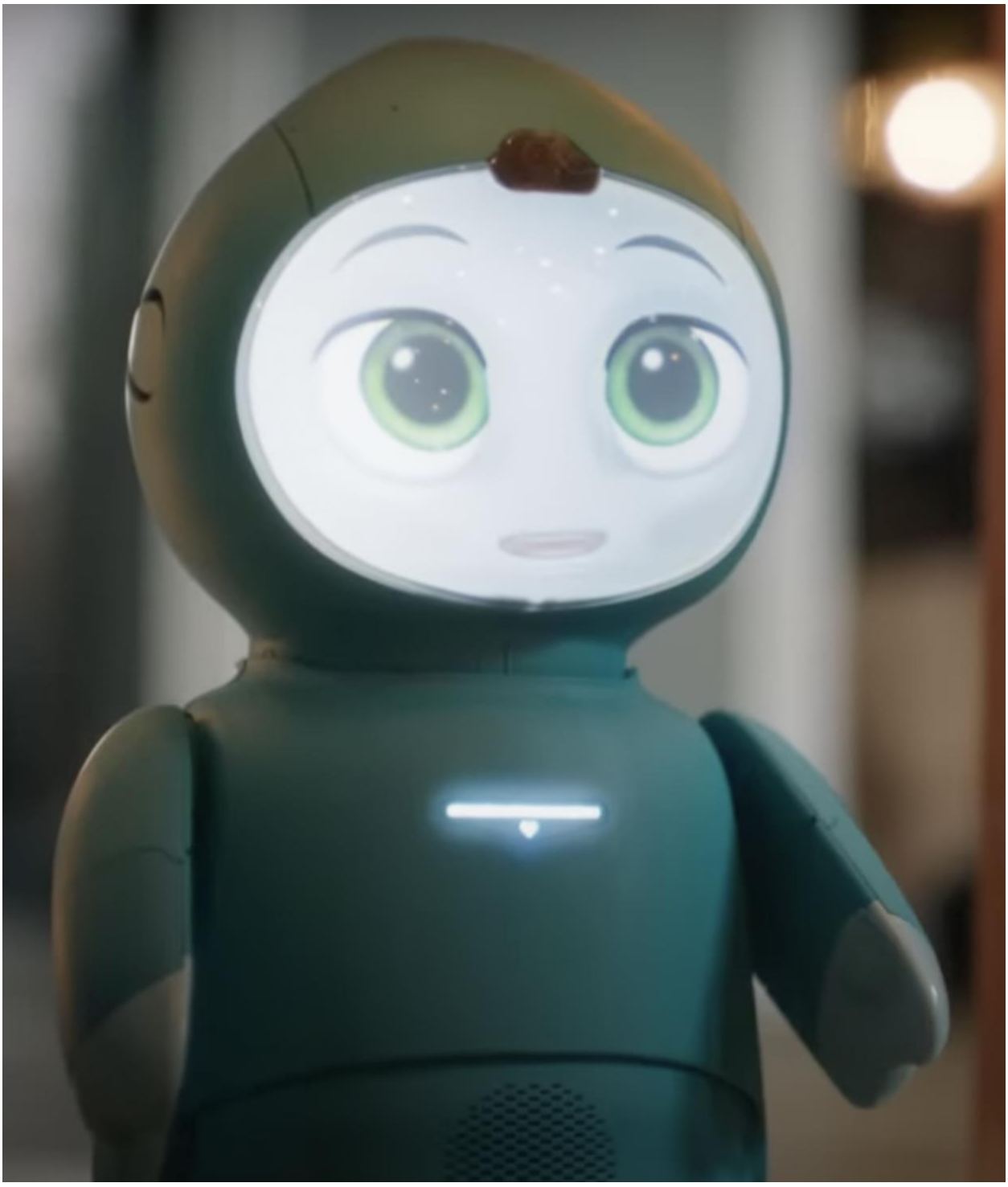

Figure 2: Screenshot of Moxie obtained by author.

It seems that the avatar-like face of Moxie, which is often shown with a neutral or smiling expression, is the primary way it embodies the qualities of a human communicator. As

previously mentioned, Wilson Harron made a point of distinguishing Moxie from regular chatbots and computers to posit it as a competent communicator. Both the technical capabilities of Moxie and its visual interfaces are part of this discursive figuration.

Teacher

Once Moxie is established as an excellent interpersonal communicator, the website consistently makes arguments for why Moxie is capable of teaching. These appeals are less rooted in Moxie's visible bodily movements and more concerned with the invisible process within the machine. As Embodied Incorporated puts it, "Our state-of-the-art platform combined with content informed by best practices in child development, come together to create a revolution in learning for children."[109] This mention of a "revolution" in learning reappears throughout the website. Moxie is distinguished from typical digital or computational tools with two-dimensional avatars to highlight how the machine's embodied interfaces uniquely equip it for the task at hand. Moxie's lively multi-dimensional characteristics such as arms that can be thrown up, a body that can lean forward and back, and expressions situated in a simulated face on a head that moves, not only enhance its interpersonal skills but enable a multi-dimensional view of the machine.

The learning strategies deployed by Moxie are presented as unique from other learning technologies that may use multiple choice questions or rely on videos to teach a new concept. As the front page of the website states, "children engage in creative play with Moxie - drawing, storytelling, mindfulness practice, and more - that helps promote important life skills such as conversation, turn-taking, emotion regulation, and how to make friends."[110] In the age of iPad kids, Moxie's ability to teach without keeping kids glued to a screen on which media is being played could be appealing to parents. Legal guardians and parents who want to reduce their

child's screen time may be swayed by this rhetorical recharacterization of the machine's screen as a face paired with the non-digital activities it encourages. Rather than an educational tv show that recites information to children, Moxie is described as actively participating in physical and vocal tasks external to itself.

Creative tasks and communication are typically taught by human instructors, but Moxie is apparently able to teach them because it is built by experts who have invented instruction in interpersonal communication through the machine. "Our team of child development therapists and experts have designed and set a deliberate pace of activities that help children practice important skills and encourage them to engage with family and friends."[26] Notably, Moxie is positioned here as a facilitator of activities so children can practice engaging with other, more human communicators later. Moxie's interfaces are presented as uniquely engaging in a way that other non-human actors could never match. It looks like a cartoon character come to life, an enchanting toy that any kid would love to play with. At the same time, the machine is carefully rhetorically positioned so that it is simply a mechanism for practicing rather than a replacement for human interaction.

Dr. Caitlyn Claybaugh, a computer scientist, shares further details about why Moxie is the ideal teacher in a promotional video.

> The idea is that Moxie will be with this child long term. Over that long term time with the child, Moxie can learn and adapt its content and strategy to cater to that child's specific needs, helping the child learn in their own unique way. If they need to practice something at one time, Moxie can cater to that need and at another point in their life, it could learn to cater to another part of the child's development.

In this statement, Moxie's embodiment as a teacher is described as adaptable and individualized to a growing learner. Unlike the schoolteacher who might only stay with the child for a year, the robot is described as growing with the child. Moxie is not just a teacher, but the personal teacher for the consumer's child that adjusts its programming just for them. When put together, these observations reveal that AI products like Moxie are not only presented as teachers, but a different kind of teacher that is more personalized and adaptable to the child.

Therapist

Advertisements for Moxie depict the machine engaging in emotional labor akin to a child therapist. One of the promotional videos for Moxie depicts the robot comforting a sad young boy named Riley.

> Moxie: "And then what happened?"
>
> Riley: "He said he didn't want to play with me anymore."
>
> Moxie: "Thank you for telling me about your day. Sometimes holding a friend's hand makes me feel better. Do you want to try squeezing my hand?"[111]

Riley squeezes Moxie's hand, which looks more like a blue dolphin fin than a human hand, then Moxie makes a dinging noise and its face sparkles. Unlike a tablet-based game or a teletherapist, Moxie is characterized as a robot that can provide the child with physical comfort through emotionally difficult times. Importantly, Moxie's human-like ability to emotionally comfort children is not articulated as a replacement for human comfort. Instead, Moxie is described as something that "complements traditional therapy."[112] The audio and video reward of the sound and light show is more like a game than a human affirmation, the "hand" that cannot grasp or squeeze back provides none of the comfort of a human hand. And yet the emotional comfort appears to be there nonetheless.

As previously discussed, Moxie's makers regularly mention the child development and therapy experts that assisted with the robot's construction. It is never specified how Moxie is programmed to express and respond to emotions, but it is illustrated in advertisements for the product. Both videos and customer testimonials about how Moxie embodies emotions (and emotional support) are at the forefront of these appeals. For instance, one parent swears that Moxie taught their child to "identify and vocalize his feelings to me when I had done something to hurt his feelings. He has also been better at navigating conflict with friends without needing an adult to step in." – Mom of 6 y/o boy.[113] This statement is not only a testament to Moxie's efficacy, but it posits a desirable result of Moxie's interactions with children. This parent describes emotions that can be made sense of and emotions that do not require labor or intervention from adults like herself. This praise of Moxie, while well-intentioned, implies that it is ideal for a machine to help a child articulate human emotions so other humans do not have to deal with raw, unprocessed feelings, and minimize antagonistic interactions between children so that adults do not have to manage them.

Perhaps this helps explain why Moxie is increasingly suggested for autistic children. As Embodied Incorporated put it a few months ago, "Moxie hasn't been designed for any specific diagnoses."[114] Moreover, the robot cannot interact with nonverbal children or those with "significant verbal challenges," which can come with some forms of autism.[115] Despite this, the company's Facebook page regularly posts what appear to be customer-made videos of Moxie interacting with autistic children and quotations from customer testimonies lauding the robot's ability to help children with autism manage emotions.[116]

Embodied Inc. appears to be promoting a crucial message that they cannot legally say themselves through customers' visual and textual portrayals of Moxie's embodiment. In 2020,

the company conducted one in-house study where they quantitatively assessed 12 (predominately male) autistic children interacting with Moxie and documented it in an open-access archive without a peer-review process.[117] The study suggested that Moxie helped improve social and emotional skills among autistic children. This study was made public less than a year after Moxie's release, so it seems that the company might have some interest in portraying Moxie as potentially helpful for autistic children.

The implications of a non-human robot that teaches children, autistic or otherwise, to manage their emotions in a way that is more palatable to other humans raises a host of concerns. For one, it prompts the question: is AI being used and imagined to help children or to make children's emotions less inconvenient for adults? Are complex emotions, such as those experienced by autistic children, not worthy of human emotional labor and thus need to be relegated to a machine? To be clear, I am not criticizing parents who want to help their children and are open to new methods they believe could be useful for their child. Rather, I wonder why a machine is seen as a particularly suitable companion for children with social challenges or neurodivergence. Perhaps this is the less expensive alternative to a human therapist or expert for families. Whatever the reason may be, Moxie and several other robots are increasingly being developed to teach autistic youth. Some technology companies even claim that autistic children learn better from robots.[118] While potential consumers and others may wonder just how effective Moxie's emotional strategies really are, we must also attend to the underlying reasons why AI is being applied to children's social and emotional expressions in the first place.

The Datafication of Children's Expression

Moxie cannot only speak, but it also watches on behalf of the parents. As the Embodied Incorporated website states, "personalization of the interaction with Moxie helps increase

learning gains, and parents can track their child's progress through our companion parent app."[119] At one point in a video advertisement, Moxie tells a child, Riley, to draw a picture and he complies. Later, the mother is shown discovering a drawing of a flower with words like "happy" and "great" drawn inside of it. She smiles and opens the parenting app to program Riley's dentist appointment into Moxie.[120]

Indeed, Riley's negative emotions are successfully managed by the watchful robot, or rather, by the mother who is shown using the app, an extension of Moxie's embodiment, as a tool to manipulate those emotions. Moxie not only engagingly watches children with the aforementioned facial expressions but collects information and interprets it into percentages meant to indicate the development of the child. As they explain on their website,

> Moxie is accompanied by a companion app that provides parents with meaningful insights into their child's interactions with the robot. Through this companion app, parents have access to their child's weekly progress, activities, and deep insights into their child's abilities in three foundational developmental goal categories: Cognitive, Social, and Emotional. In addition, the companion app provides parents with insightful and actionable suggestions about supporting their child's development.[121]

Here, Moxie is portrayed as useful precisely because it can collect and distill information in ways unlike a human being. Through quantitative assessments, it offers parents the ultimate insight into their child's interactions without bothering them with specific information about the content of that communication or its context. Parents are even given suggestions by the watchful machine to improve their child's progress. For instance, the app tracks the time the child spends reading, the number of books they read, and how many "cognitive STAR goals" they meet.[122]

While a teacher certainly measures and reports a child's progress through grades, Moxie offers a handheld series of numbers that give far more detail than a letter grade might. This robot not only uses its embodied form to supposedly facilitate productive human interactions for children, but it provides a sense of control and comprehensive knowledge over the child's interactions through its reporting of numbers that are said to represent the child's developmental goals. Tracking the number of books a child reads could be harmless, but applying a standard and quantitative score to children's social and emotional development is far more consequential. What kind of emotions and social interactions will AI interpret as underdeveloped? What does the system set as the ideal pace for a child to meet its standards?

Similar to the observations made in the first case study with Orai, Moxie demonstrates the potential limits of quantitative frameworks in human communication. A data-based and machinic approach to labeling certain social interactions as more or less desirable is bound to exclude someone who cannot fit the mold of supposedly ideal communication. Much like the pacing and number of "ums" cannot necessarily tell us what good public speaking is, the number of books a child reads for a machine is a limited marker of development. Even if AI is based off of research-backed behavioral models, exclusively quantitative ways of evaluating and applying those models can insist on a singular idea of acceptable communication and emotional regulation. In other words, an exclusively machinic understanding of acceptable socialization can reinforce troubling binaries of "good" and "bad" communication, effectively valuing normative forms of expression above all else.

Embodied Incorporated's encouragement to imagine AI as not just a tool to practice interpersonal communication, but as an assessor of acceptable human socialization proves troubling. If we are led to believe that our children's emotional state and social development can

be determined with a AI-generated score, then we are investing in the idea that there is a single objective truth about human communication. In other words, the desire to imagine AI this way implies there are correct and incorrect ways for humans to communicate interpersonally, and Embodied Inc. has a proprietary claim to that knowledge.

Artificially intelligent toys pose a series of concerns, but Moxie is presented in a way that suggests parents need not be worried. Through its embodied rhetoric, Moxie enables a certain view of AI's potential and acceptable human communication. This multiplicity obscures how AI imaginaries impact human communication as we turn our attention to what robots are capable of and ought to be used for in an era of isolation.

CHAPTER THREE

Corporate Intelligence: Popular Imaginaries of Generative AI

The previous chapters established how marketing strategies, UX design, and the capabilities of AI technologies themselves often promote technoliberal ideals of human communication when making a case that AI could enhance our communication skills. The purpose of this chapter is to understand what kind of intelligence designers and promoters of artificial intelligence are thinking about when they construct technologies to improve human communication education and processes. More specifically, I am concerned with how rhetorics of corporate intelligence are applied to the practice of rhetorical invention, especially with the rise of generative AI. In attempts to calm the public's worries about the emergence of more advanced AI, the technology industry releases open letters displaying caution and framing artificial intelligence in corporate terms. I argue that this framing reveals something about how the creators of this technology perceive human intelligence and influences how boosters and even critics of AI envision its purpose and potential.

In the wake of Chat GPT's public release, not only did the technology industry publish open letters, but countless news outlets and reddit forums alike surged with commentary on the potential benefits and harms of AI. Among these speculations, concerns, and optimistic messages there were several common threads. This chapter focuses on one of the shared themes across contemporary public discussion of AI: discourse on how intelligent AI is and if it can make humans (more or less) intelligent. While these texts are putatively focused on the human-like intelligence of AI or its ability to impact human intelligence, I argue that the underlying logic of this rhetoric of intelligence is ultimately guided by ideas of corporate intelligence.

Intelligence

The idea of intelligence, specifically the intellectual capacity of human beings, is closely tied to personhood. Political philosopher Roberto Esposito posits that personhood creates a hierarchy rooted in perceptions of the human body, including mental and intellectual ability. This hierarchy ultimately leads to a system where social structures embrace a binary between full person and "thing" undeserving of privileges.[123]

This system of labeling people as more or less deserving of full personhood has long been used as a justification for systemic violence towards racialized, disabled, colonized, and otherwise marginalized people.[124] Michel Foucault argues that this discipline and oppression of bodies deemed abnormal occurs through biopower. Biopower refers to a form of power enacted on otherized bodies and produces ideals of human bodies.[125]

Institutions that classify intellectual capacity play an important role in enacting biopower that goes on to define an individual's relationship to personhood. Foucault locates one such institution by describing how medical systems pathologize and thereby demonize different bodies. As he puts it, "disease is a deviation within life" and those deviations are often characterized as inferiority.[126]

Disability scholars and activists offer more expansive explanations of how bodies labeled as less capable or weak are given less access to full personhood. For instance, Marta Russell and Ravi Malhotra explain that ableism is largely based on "arbitrary diagnostic categories" that place "unwarranted emphasis on medical issues and not enough on the barriers imposed by the physical environment and the class system."[127] Put another way, directing attention to mental or physical differences as impairments centers the disabled body as problematic, rather than addressing the disabling world surrounding it.

As Jasbir Puar explains, some "debilitation is caused by global injustice and the war machines of colonialism, occupation, and US imperialism."[128] Conditions that shape the survival and experiences of disabled people[129] ought to be centered over the harmful knowledge produced by pathologizing bodies. Instead, diagnoses and metrics such as IQ tests continue to determine the so-called true capability or intelligence of an individual, and by extension, full personhood.

Across history, intelligence has largely been discussed as a human or animal capacity, but scientific and public discourse over the past century has applied this idea of intelligence to advanced computation as well. Science fiction novels long imagined the possibility of robots and computers with human-like or even superior intelligence. Towards the middle of the twentieth century, these imaginaries of future technologies became a reality for those who built advanced machines.[130] In 1950, Alan Turing published the paper "Computing Machinery and Intelligence" to discuss the possibility of and path forward for making intelligent machines. He began this essay proposing the question "Can machines think?"[131] In 1956, the Dartmouth Summer Research Project on Artificial Intelligence further cemented the term and launched the following decades of AI research.[132]

The assignment of intellectual capacity to machines signals the growing personification of advanced technology in a time where so many people still lack full personhood or even humanhood. In this chapter, I argue that the concurrent rhetorics of artificial and human intelligence are anything but coincidental. In fact, discussions about the true or human-like intelligence of AI often reify and shape ableist ideals of intelligence and consequently, access to personhood or humanhood.

Neda Atanasoski and Kalindi Vora further this point in their writing about robotics' relationship to race and labor. The problem of degrees of difference between human and machine

(that is, the distance along a spectrum from the fully human to the unquestionably nonhuman) raises the critical question of what it is that a human does (and how the human is defined by the quality of their labor).[133] In other words, the closing rhetorical gap between the humanity of people and machines enforces but also forms practices of dehumanization.

Corporate Intelligence

The choice to label advanced computational inventions as Artificial Intelligence begs the question, what kind of intelligence does AI have exactly? Journalist James Bridle argues that "when we talk about AI, we're mostly talking about this kind of *corporate* intelligence and ignoring all the other kinds of things that AI—that any kind of intelligence–could be."[134] Inspired by Bridle's work, this section seeks to locate a rhetoric of corporate intelligence that dominates AI-related discourse.

Human intelligence, as I established earlier, is linked to personhood. While rhetorical studies have yet to fully address corporate intelligence, there is work on the rhetoric of corporate personhood.[135] Corporate personhood refers to the legal and rhetorical classification of corporations as private citizens with rights like a person. Amid many critiques of corporate personhood, Kevin Musgrave provides an account of how those criticisms can participate in problematic and ableist conceptions of what makes someone a full person. Specifically, he argues that calling corporations psychopathic (and therefore unworthy of personhood) appropriates and rearticulates the biopolitics of liberal personhood, using the rhetorical space of the person to devalue corporate forms of life and espouse a normative vision of the person, stripping people of the rights, privileges, and protections of full legal personhood, while simultaneously using them to encourage the surveillance and policing of the social body.[136]

Much like the potential for discourse surrounding corporate personhood to reproduce harmful biopolitical concepts, I argue that rhetorics of corporate intelligence also rely on troubling notions of human intellectual ability.

Corporate intelligence, like corporate personhood, is an actual business term that prioritizes a certain kind of intelligence. Corporate intelligence refers to knowledge built and motivated by capitalist institutions. This includes speculative practices that produce knowledge about the future and its potential challenges to improve organizational performance. The Harvard Business Review explains that the purpose of gathering intelligence (about financial, political, and other threats) in the private sector is to mitigate risks to the corporation's productivity and profits.[137] The data that is gathered influences executive and management decisions within an organization. Some of these definitions involve the practice of gathering intelligence, like a spy might for organizations like the CIA or the FBI. However, my focus on the rhetoric of corporate intelligence is concerned with how AI's *capacity* to either gather or produce intelligence is discussed in and among the public.

Some industry workers and writers are already suggesting that AI ought to participate in or singlehandedly produce this intelligence for corporations.[138] After all, AI's intelligence is corporate. Advanced computation that captures data, detects patterns, and offers statistical insights is precisely the kind of intellect that these organizations use to assess risks and maintain their growth. Human beings with the intellectual capacity and skills to produce statistical insights about large amounts of data are also seen as highly valuable laborers to corporations. This kind of intelligence is the kind most highly valued by corporations.

My use of the rhetoric of corporate intelligence is informed by this discourse and centers language about what kind of intelligence is valued under capitalism. Businesses value

quantitative and data-driven knowledge to make important decisions. I argue that an assumption that corporate intelligence can be applied beyond business applications and the rhetorical cues that signal that assumption obscure the consequences of AI. I am particularly interested in how the technology industry expresses concern about the societal impacts of AI by deploying the rhetoric of corporate intelligence. This discourse is concerned with items such as risk mitigation, (de)valuing labor, and exerting control over technological tools for economic benefits.

Additionally, AI comes from large corpuses of text rather than the individual. Much like a corporation, these machines that produce writing often draw from several fragments of writing from a large body of people. In analyzing this rhetoric of corporate intelligence, I am interested how massive amounts of data are compared and contrasted to individuals humans completing similar tasks to AI.

Some Tech Industry Articulations of Corporate Intelligence

In the wake of Chat GPT's public release, corporations responsible for making advanced AI participated in several political efforts, publicity events, and even open letters to the public. Among these open letters and statements were Open AI's February 2023 "Planning for AGI and beyond" as well as a letter from the Future of Life Institute "Pause Giant AI Experiments" that was signed by over 3,000 people. Among its signatories were tech CEOs, founders, professors, and others such as tech billionaire Elon Musk and former presidential candidate Andrew Yang.

The Future of Life Institute's letter came about a month after Open AI's statement and directly referenced it. As the unknown author of FLI's letter writes

> OpenAI's recent statement regarding artificial general intelligence, states that "At some point, it may be important to get independent review before starting to train future

systems, and for the most advanced efforts to agree to limit the rate of growth of compute used for creating new models." We agree. That point is now.

Broadly speaking, the Open AI text released by Sam Altman, OpenAI's CEO, reads as an optimistic response to fears about advanced AI such as ChatGPT and makes general suggestions on how to proceed with ongoing innovations in AI. Conversely, FLI's letter calls for an immediate pause to larger AI experiments, proposing a specific action for corporations, academics, and anyone else who is deeply involved with the development of advanced AI systems.

It is worth noting that some of the letter's signatories have quite a bit of skin in the game when it comes to the organization that released ChatGPT, namely Elon Musk who previously donated funds to OpenAI when it was a nonprofit. He was even on the OpenAI's board until stepping down in 2018. On X, formerly known as Twitter, Musk objected to OpenAI's transformation from a non-profit group into a profitable company as he was not given any company shares despite his financial contributions.[139]

Although these texts differ significantly in their calls for action, I argue that both reflect a rhetoric of corporate intelligence that prioritizes efficiency and/or describe AI's intelligence as human-like or all-knowing. Oftentimes, these characterizations of AI are broadly framed as beneficial for human beings. In the case of the Open AI statement, Altman writes that "our mission is to ensure that artificial general intelligence—AI systems that are generally smarter than humans—benefits all of humanity."

It seems as though referring to these advancements as artificial intelligence is no longer adequate because they are now so smart we can refer to their knowledge as "general." Although

AI can certainly do more tasks with models like Open AI's ChatGPT, Altman does not clarify why or how AGI is "generally smarter than humans." What exactly is AGI smarter at?

The original definition of artificial general intelligence or AGI "is difficult to precisely define but refers to a super intelligent AI recognizable from science fiction."[140] In an article examining OpenAI's choice to refer to ChatGPT as AGI, journalist Reece Rogers summarizes his understanding of the company's vision of intelligence when he writes that

> No concrete definition of the term [AGI] exists. So, how do these researchers describe it? They focus on the algorithm doing better than most humans at standardized tests, like the bar exam. They also focus on the wide variety of stuff the algorithm can do, from simplistic drawing to complex coding.[141]

Rogers describes AGI being especially good at competitively scored activities like standardized testing as well as coding so advanced that it is "complex." Meanwhile, the kind of drawing or art making abilities of this super advanced AI is "simplistic." This kind of characterization seems to not value artistic tasks so much as more technical and quantitative abilities that are often a part of higher paying jobs. Rogers goes on to state that in everything from research papers to the Altman blog post examined in this chapter, OpenAI's descriptions of artificial general intelligence are so vague that it makes it challenging to say whether ChatGPT has actually achieved it or not.

These kinds of vague descriptions of the strong intellectual power of AI are also present in the Future of Life Institutes' open letter. The letter repeatedly refers to newer forms of artificial intelligence as "human-competitive intelligence." This idea of AI potentially overpowering human knowledge continues with statements describing emergent forms of AI as "ever more powerful digital minds that no one – not even their creators – can understand, predict, or reliably control." Furthermore, why is human *competitive* intelligence, rather than human-like

intelligence, repeatedly referenced as a valuable ability? It could be because the desire to compete, like a corporation does with other corporations, is seen as more useful than being similar to anything.

In the 1990s and early 2000s, discussions about artificial intelligence utilized similarly vague language about its potential and immense capabilities. As Barbara Warnick explains, "strong AI" was the term used to refer to how AI could be capable of matching or even surpassing humans.[142] Now and then, it seems that discourse about what AI can or could do are continually centered on comparisons to human intelligence, and the language used to describe it draws on what is most valued in a patriarchy, namely, strength.

This rhetorical relationship between human and machine intellect, and appeal to corporate values, appears alongside other claims and speculations about AI's potential. Altman's Open AI statement claims that the company wants artificial general intelligence "to be an amplifier of humanity." This word choice may be a response to fears of AI overtaking human jobs and other responsibilities. However, this language reflects many corporate narratives of advanced technology somehow improving, enhancing, or bettering humankind. Corporate narratives might best be understood as common rhetorical moves by corporations and their executives. Altman continues this trend by discussing AGI's potential to "elevate humanity by increasing abundance, turbocharging the global economy" therefore "providing a great force multiplier for human ingenuity and creativity." These descriptions of speed and excess in the service of economic growth are put forth not only as desirable but enabling uniquely human capabilities like creativity. The kind of creativity or tasks humans will be better equipped to do with AI is not specified.

Amid these promises, such as the FLI's letter's phrasing that "humanity can enjoy a flourishing future with AI," are also constant messages about the need to control or "align" advanced artificial intelligence. The Open AI statement explains that the company is working towards "creating increasingly aligned and steerable models." Meanwhile, the FLI letter argues that "AI research and development should be refocused on making today's powerful, state-of-the-art systems more accurate, safe, interpretable, transparent, robust, aligned, trustworthy, and loyal." Regular mentions of loyalty and steerability indicate a strong desire to exert control over AI. Again, perhaps this is meant to respond to public fears about super intelligent computers going rogue and undermining humanity. But it is just as likely that what we're seeing with this list of goals is an inventory of employee characteristics prized by corporate managers. This constant reassurance that AI will be kept under control to the point of being "trustworthy" or "loyal" sounds like a corporate executive talking about the ideal human worker. Paired with speculations about the abundance and efficiency brought on by AI, these descriptions sound more like an ideal employee rather than an advanced computer.

AI-powered technologies are already performing traditionally feminine and underpaid labor such as those done by personal assistants and secretaries. The concept of AI or robotics replacing low-paying jobs like that of assembly line and data entry workers is not new. What is new is the idea that AI will take the jobs of knowledge workers. Public statements about generative AI seem to imply that more advanced versions of this technology offer a new host of labor-related considerations. As the FLI's open letter asks, "Should we automate away all the jobs, including the fulfilling ones?"

The letter does not elaborate on what might make a job more or less fulfilling, but there may be some underlying assumptions given its focus on generative AI that can write like a

college-educated person. The absence of acknowledgement of the jobs AI has already replaced also seems to imply that these supposedly fulfilling jobs, as opposed to unfulfilling ones, involve writing and critical thinking skills often used by laborers with higher education degrees. Statements like this demonstrate that the authors value white collar work in a corporate setting as if it is the pinnacle of intelligence.

Whether generative AI is understood as a risk requiring regulation, as the FLI open letter suggests, or an exciting possibility – it is consistently referred to as a tool to help humanity "enjoy a flourishing future." The important details about which humans will flourish and how so are not explicitly stated. But they can be implied from a close reading of what is valued and what is not in the texts. In posing a question about which kinds of human labor AI ought to perform or even replace, the question hints at an all too familiar reality: displacement by machines is not an issue until it appears to impact more elite classes. The moral panic over generative AI is driven by the fact that it is a kind of corporate intelligence that the technology has achieved.

Even when AI may appear to have the generative potential of a highly educated human laborer, such as a lawyer, tech industry actors (like Altman) imagine a more empowered human worker and individual. However, the biggest benefactors of faster work from digital laborers might be the larger systems and corporations that employ them. Lower paid forms of manual labor, typing, and human interaction are automated rapidly without public letters signed by tech billionaires, researchers, and politicians.

Significantly, these discourses about AI's intelligence are not just comparisons to human intelligence writ large. Instead, it is the rhetoric of corporate intelligence that appears when AI is imagined as adding elements of transparent, aligned, and trustworthy speed, efficiency, and abundance to the workplace, all aspects of human intelligence that are valued under capitalism.

Street smarts, emotional intelligence, and other types of intellect are human kinds of intelligence that are not valued in these conversations, perhaps because they are not as useful to corporations.

Corporate Intelligence in Public Discourse

This rhetoric of corporate intelligence, however, is not exclusively produced and reinforced by the tech industry. In this section, I demonstrate how public thinkers and writers imagine and even elaborate on the corporate intelligence offered by generative artificial intelligence. These articles were chosen because they explicitly discuss the intelligence of AI or how AI might impact human intelligence. They were also featured in major publications and written by experienced professionals with an existing following for their work.

"The Big Idea: Will AI Make Us Stupid?"

In a recent essay published in *The Guardian*, "The Big Idea: Will AI Make Us Stupid," journalist and *New York Times* bestselling author Simon Winchester addresses societal fears about how the rise of artificial intelligence will impact human intellectual ability. He compares the rise of AI and its potential role in human life to the invention of other technologies across history such as the calculator and the GPS. Notably, Winchester describes these innovations as convenient contraptions that allow us to rest and dedicate our minds to more important matters:

> Our brains can now relax. Whatever cerebral nooks and crannies we employed, for instance, to read paper maps, or to use sextants and compasses and chronometers to find out where we were, have now been put into cold storage: GPS has given us all the direction we might ever need.

After a helpful history lesson, he tells us about the increasing moral panic surrounding emergent technologies and fears that our minds will no longer need to think at all if AI does it for us. Evoking the dystopian world in Disney's *WALL-E* film, he acknowledges the possibility of a

future where humanity no longer needs or uses their bodies. However, he argues that AI and its intellectual output is not necessarily the end of thinking with our human brains. Drawing a comparison to Ancient Greek thinkers, Winchester contemplates what thinking might look like in a world where there is less that we need to know. As he puts it, ancient minds were refreshingly free of the clutter of modern life.

> Which is why our modern minds, once they have been purged of all that today's algorithms might now deem *unnecessary* information, will be as ready as theirs were to think, to inquire, to wonder, to contemplate, to imagine, to create. So I see today's algorithmic revolution as a necessary cleansing, a movement by which we rid ourselves of all the accumulated bricolage of modern intellectual life, returning us to a more reasonable sound-to-noise ratio, gifting us with a renewed innocence, filled with potential.

This age of cleansing and renewed innocence sounds almost biblical. More significantly for my argument, certain information is imagined as being unnecessary one day. So, what happens to people who are skilled or especially knowledgeable with this information? What information, and therefore labor and knowledges, will be deemed as less useful? I argue that lesser compensated labor and knowledge falls victim to this further devaluation. To use Winchester's earlier example of the calculator, technological history would tell us that time consuming math equations and long division is worth automating. Instead of carrying over the one, we learned how to use a calculator to perform more complex equations at a greater speed. Performing complex math equations is also the kind of skill that is highly valued by corporations so machines that could accomplish tasks like these were increasingly referred to as smart or intelligent.

"Dumb AI Is a Bigger Risk Than Strong AI."

An example of this discourse prior to the ChatGPT craze that reflects a rhetoric of corporate intelligence can be seen in Evan J. Zimmerman's piece for *Venture Beat* entitled "Dumb AI Is a Bigger Risk than Strong AI." He is a lawyer and company founder with a specialty in technology patents, but Zimmerman does not go out of his way to flaunt his credentials. Instead, he begins the piece with a vision of the future situated in 2052. He describes a world run on nuclear power that suddenly encounters an issue with biased software. As he puts it,

> What we didn't know is that the software for all nuclear power plants, made by a few different vendors around the world, all share the same bias. After two decades of flawless operation, several unrelated plants all fail in the same year. The council of nuclear power CEOs has realized that everyone who knows how to operate Class IV nuclear power plants is either dead or retired. We now have to choose between modernity and unacceptable risk.

A consistent theme throughout Zimmerman's article is the characterization of AI's potential bias or problems as "risks." Much like the corporate texts describing fears about AI, he uses the corporate language of assessing potential threats to a business when describing the kind of intelligence that AI contains, whether "dumb" artificial intelligence or "strong" artificial intelligence. While this language and analysis of risks may not be exclusive to corporations, this discussion of financial risks is frequent theme across capitalist discourse.

In this vein, he regularly describes the primary problem with AI as a lack of intelligent application by human beings.

> First and foremost, there is a dramatic risk from AI that is built on fundamentally fine technology but complete misapplication. Some fields are just completely run over with bad practices.

This description of "fundamentally fine technology" places the blame for AI's problems on the people who use it. Here, the risk is not that AI itself has flaws or that the desire to use it for certain matters is problematic. Rather, Zimmerman appears to think that we should be concerned about how humans apply it. He continues this pattern by explaining our haphazard attempts to avoid the risks of "dumb AI."

> Usually, we avoid dumb-AI risks by having different testing strategies. But this breaks down in part because we are testing these technologies in less arduous domains where the tolerance for error is higher, and then deploying that same technology in higher-risk fields.

He provides an example of "higher-risk fields" by discussing how the AI models for Meta's content moderation and Tesla's autopilot are built from the same core technologies. In this example, autopiloted cars need some supposedly smarter or, as he puts it, less "lax" AI models. Phrases like "lax" seem to imply that more relaxed technology is less aligned, or disciplined. Therefore, these less strict or controllable models are less desirable. Notably, Zimmerman continues to articulate and imagine AI as only having corporate applications aimed at profits rather than addressing its potential in nonprofit or government sectors.

While the desire for more advanced AI in a machine that drives a human through traffic is understandable, Zimmerman's linguistic choices in characterizing issues with AI reflect an underlying rhetoric of corporate intelligence. Not only are AI's harms put forth as largely

hypothetical “risks,” the author makes an interesting choice when he labels this risky AI as “dumb.”

Typically, we might think of a computer or a machine that does not fulfill its intended purpose as *broken* or perhaps even *poorly built*. However, there are clear references to human-like intelligence when he describes a machine’s dysfunction as “dumb” and makes claims such as “our greatest risk is like the vignette above: AI that is not malevolent but stupid.” This may be intended as wordplay on artificial *intelligence*, but the connotations involving human intelligence are impossible to avoid, especially with machines that are performing traditionally human tasks.

Moreover, some of the tasks that require this intelligence are skills a corporation would find useful. Running a nuclear power plant with a machine, for instance, would certainly cut costs and be far more convenient. A human physicist certainly could not run a nuclear power plant 24 hours a day so AI that can transgress the time-related and physical limitations of humans is seen as especially desirable for a company. The examples provided of “high stakes” fields and tasks AI could complete do not involve a less profitable task like producing art or aiding nonprofits. As a result, the author implies that the kind of scenarios that could be considered “high stakes” are corporate ones and that they require the most intelligence and urgency to be done correctly.

Zimmerman’s rhetoric contrasts from the other texts in that it avoids the common theme of praising AI’s unquestionable intelligence or impressive abilities. This choice certainly sets his words apart, but I argue that it still participates in harmful ideas and underlying assumptions. For this author, the concerns about advanced artificial intelligence are largely unsubstantiated panic from people he goes as far to call “luddites.” Instead, he posits that the real concern ought to be that AI cannot perform these tasks accurately or well, much like a flawed human worker a

corporation might decide to fire. Unconcerned with the people replaced or surveilled with the help of AI, and inattentive to the way his characterization of "dumb" reflects on real people. Zimmerman directs our attention to the inefficiency that could be caused by the misapplication of these technologies.

The argument seemingly places AI back into the realm of human beings by placing the responsibility of AI's potential in the hands of the people who use it and will supposedly benefit from it. Yet even the hypothetical harms described by Zimmerman involve some kind of organizational or institutional failure. These examples might be used to demonstrate the wide-reaching and high stakes threats posed by misapplied AI. Still, it is curious what examples and case studies are deemed high stakes, and therefore worthy of explaining. Much like the other texts in this essay, the past and present displacement of low-income laborers goes without mentioning. The eye-catching headline seems to be radical in that it questions the true intellectual capacity of emergent technologies. Rather, it is a critique of how large organizations utilize AI technologies that are treated as inevitable even by the critics, not optional.

Conclusion

These texts each propose a different path, solution, or idea related to AI. At the same time, they share similar assumptions about the intelligence possessed by recent forms of AI. Advanced computation is continuously portrayed as an enhancement to humanity, particularly for creative and abstract thought. Most of the texts acknowledge the possibility of AI-induced harms but treat them as a future hypothetical that could be prevented by taking the actions prescribed by the author.

Perhaps most interestingly, all of these texts discuss AI in relation to human intelligence. AI is often described as having crossed, or about to cross, some kind of line between human and

machine intelligence. As that line starts to evaporate, at least rhetorically, certain ideas emerge of what aspects of human intelligence are uniquely human and therefore unsuitable for a machine. Broad descriptors of AI's "powerful digital minds" or "human-competitive" intelligence appear to valorize the ability of these machines. I would say they also devalue certain other forms of intellectual and physical labor.

Additionally, the tendency to talk about AI in terms used to describe human intelligence also brings about an interesting set of implications. Oftentimes, the people society labels as unintelligent or handicapped in some way are those who cannot perform highly compensated labor or, in some cases, labor that is compensated at all. When these terms are bluntly reinscribed onto machines, going as far to call them derogatory words like "dumb" or "stupid," how is disabled and supposedly less intelligent human life valued? The rhetoric of corporate intelligence is not solely about the capabilities of machines, but about defining intelligence based on ability to achieve organizational standards. Those standards, means, or ends go without question. Instead, the focus of these practical and ethical debates remains on the machine or human worker's ability to augment and quicken existing processes of larger systems.

The reflection of these ideologies beyond corporate texts, seeping into popular journalism and culture, signals a need for a new imaginary and perhaps a new lexicon for artificial intelligence. In a time where AI is imagined and subsequently created to benefit corporations and their executives, what would a radical imaginary of artificial intelligence entail?

CONCLUSION

Useful for Whom?

The case studies analyzed in this dissertation demonstrate a variety of ways artificial intelligence is currently applied to the purported improvement of human communication and the way communication about artificial intelligence reveals what we think about human intelligence. When put together, these examinations reveal some rhetorical patterns across discourses about contemporary AI, and perhaps most interestingly, about how human communication is understood and judged in an increasingly automated world. In this conclusion, I will detail the connections and takeaways from my previous chapters by addressing my initial research questions. Then, I will discuss how these insights can inform future research in the study of communication, technology, and rhetoric.

R1: How are recent AI technologies presented as competent communicators?

The AI devices described throughout this project were selected because a company or corporation presented their product as competent, and perhaps even an expert, on certain forms of human communication. In other words, the actors promoting AI's communication competence sometimes have skin in the game, so to speak. There is often a product to be sold and a profit to be made. As demonstrated in the final case study, public thinkers and writers may also contribute to these narratives about technology enhancing human communication and maybe even our overall quality of life.

The kind of communication each AI device could perform ranged across purpose and context. Orai was presented as capable of hearing, teaching, and evaluating human speech for the purpose of improvement. Moxie was also portrayed as a kind of teacher, but for a different purpose. It was shown, especially in advertisements, as being capable of engaging in and

modeling appropriate social interactions with a child. Both Moxie and Orai were positioned as tools capable of producing improvement in the communication of humans. The behavioral improvement promised by Moxie may seem significantly different from Orai's goal to improve public speaking, but these kinds of improvements and the assumptions they carry have a storied history with one another.

As I mentioned in my chapter on Orai, the speech hygiene movement was a moment in the discipline of Communication where faculty sought to "fix" imperfect speech.[143] Unfortunately, ideas of what proper or perfect speech constitutes can often center more privileged speakers such as the white male presidents whose orations we study. We see that kind of bias in the models Orai provides. Some remnants of this hygienic approach to communication education still exist if the goal of human communication is primarily understood as self-improvement or "fixing" improper communication by trying to sound more like, say, John F. Kennedy. Moxie, also draws on the ethos of the speech hygiene movement by claiming to improve the behavior of children who behave in undesirable ways. It is supposed to teach children how to better "fix" their own expressions and emotional management skills. As competent communicators, Orai and Moxie work to discipline speech that does not fit the norms of society.

Human communication is relational and involves nuance a machine cannot always capture. So public speaking apps and social robots rely on aspects of communication education that a machine can replicate, or at least attempt to replicate. Pace, filler, confidence, and conciseness are things that Orai claims to be able to measure. But does it? And if it does, do those quantified aspects of a speech give students what they need to improve their public speaking skills? Armed with this data, is Orai a competent teacher of public speaking? As

mentioned in the introduction, the national conference for the discipline of Communication has welcomed a newer AI-powered public speaking app to a conference booth alongside academic publishers. Additionally, I have personally encountered Communication professors who offered guidance and teaching materials to public speaking apps using AI.

While the intentions behind integrating AI into the classroom may not be harmful, AI can be harmful in practice. As I demonstrated in the first chapter, it was easy to fool the system into mislabeling my emotional expressions. It also seems that the evaluation process for tools like Orai standardize a singular ideal of pacing, confidence, and filler words that do little more than offer an illusion of successful communication. With this in mind, we should critically interrogate the institutions that seem to legitimize the automation of public speaking education as well as our own teaching practices that might utilize such limited frameworks to evaluate speech.

If we believe that AI is intelligent enough as a communicator to holistically and accurately evaluate human communication, then what kind of competence are we valuing when we apply the measurements deployed by AI systems to human affect and performance? The third case study demonstrates how the kind of communication competence we imagine and attribute to AI covertly promotes corporate intelligence as the most valuable kind of knowledge and capacity. Even if there was an AI that perfectly captured the essence of human communication, it would be a particular kind of human communication being privileged because the purpose and "usefulness" of these machines follows corporate logic valuing efficiency over everything else.

The kind of quantitative and percentage-based feedback provided by devices such as Orai and Moxie might appeal to consumers looking for a straightforward assessment of human communication. However, the desire for this kind of feedback ignores the reality that there may not be a quantifiable and supposedly objective way to evaluate human communication.

Communication practices are unique to different individuals and groups of people, and properly adapted to different situations and purposes. When AI is presented as a competent communicator and evaluator of communication by providing specific feedback that could be valuable for people seeking self-improvement, but it privileges certain pre-established communication practices such as confidence in speakers, emotional regulation in children, and efficiency in written communication, it narrows our understanding of what competent communication is.

Self-improvement, I argue, is a major aspect of how AI is framed as both competent and useful to human communicators. In this framework, one where people might seek a certain kind of information to improve rather than a conversation partner comparable to humans, AI does not have to be a perfectly competent and nuanced communicator. It simply must appear competent enough to be useful to the user.

An additional aspect of how AI is presented as a competent communicator involves rhetorical adaptions of the black box problem and mystery surrounding technology. As explained in the chapter concerning Orai, concepts such as enchanted determinism give us a starting point to understand how AI is often characterized "as magical, appealing to mysterious forces and superhuman power."[12] I had to dig up a company study to even understand what behavioral research informed Moxie's AI evaluations and curriculum. AI thrives in vague, seemingly magical, processes that are accepted as so beyond our understanding that we do not demand an explanation of its technical processes. This lack of transparency makes it unlikely that people will question the values that underlie its pedagogy.

When human instructors teach a public speaking class, they often provide textbooks, rubrics, or curriculum that not only detail but justify their procedures of evaluation. Similarly, therapists and other professionals who assist children with communication and emotional

expression often inform parents what psychological framework informs their approach. The apparent lack of this explanation in Orai or Moxie or ChatGPT, and the high rate of adoption of these technologies among users, demonstrates that AI may not be held to the same standards a human evaluator or instructor is. When society largely accepts the idea that AI is so complex that it impossible to understand how it works without technical expertise, we may be more susceptible to believing in AI's competence without much evidence, and we may make ourselves more vulnerable to the narrowing of judgment criteria for communication excellence.

R2: What do texts surrounding AI tell us about the sociotechnical imaginary regarding machinic rhetoric?

Some might assume that technology participating in human communication might don a human-like appearance. These case studies demonstrate that it may be quite the opposite. The first and second case study show AI represented as an animated parrot or cartoon-like avatar. This indicates that there may be some common tendencies to personify AI with design features such as eyes, a mouth, and occasionally a human-like name. However, the human similarities for both cartoon-like animations stop there. Moxie has fin-like arms and a lack of legs that make it look almost like an alien while Orai's representation is an animal.

Perhaps the creators of these technologies were trying to avoid the uncanny valley, or the creepiness of robots that are too like humans. As Miles Coleman suggests, these machines are persuasive precisely because they are machines offering supposedly unbiased judgements.[144] But it is also important to note that these machines are also more than an advanced computer collecting dust in a corner; they have some kind of presence represented through non-human characters. These devices are often depicted as a kind of living being, like an animal or alien-like

robot, that is alive but very different from us. Mixing superhuman assessment capabilities with the comfort of a cartoonish human companion makes these into unique rhetors.

This seemingly middle ground approach to personifying AI, without making it too uncanny, offers insights for how users are encouraged to imagine the invisible processes of AI. It appears the visualization of some kind of being might create the impression of intimacy or approachability. The generative AI discussed in the previous chapter, such as ChatGPT, may not take on the form of a cartoon character, but words appear one at a time behind a white dot acting like a pen. It is almost as if a living being is typing those words in real time instead of generating a response all at once. These cues function like signs of life, adding a liveliness and interactivity to an otherwise mysterious machine.

AI systems may be able to mimic some signs of life, but they are ultimately limited in their liveliness. The interactions between human communicators and AI are ultimately limited to a back-and-forth process lacking nuance, simplifying the act of communication to sending and receiving messages. We speak or write to AI systems like Moxie, ChatGPT and Orai, and they respond to the extent that their programming allows. Why would we want the complexities of human communication dulled down to such a simple exchange? My concern here is not just about undervaluing humanity, but what parts of humanity we are pushing aside or regarding as so inconvenient that we might as well have AI do it.

Perhaps the complexity of human communication exhausts us and we want something easier, but perhaps it is something more. Robots are increasingly taking on labor performed by humans in low wage jobs such as personal assistants, cleaning, and so forth. Much of these lesser valued professions are and historically have been occupied by women, people of color, and other marginalized workers. This relationship between robotics and disregarded human laborers is so

apparent that scholars argue that real and imagined robots are just a more palatable replacement for human slavery.[145] So how does this relationship play out when we expand the role of AI and robotics to communication tasks often performed by teachers, behavioral specialists for children, and writers?

The desire to represent communication labor typically performed by teachers and caregivers as non-human beings may indicate a desire to erase the humanity in their work. In their critique on the post-human characterizations of robots, Ethnic and Feminist Studies scholars Neda Antansoski and Kalindi Vora explain that,

> according to the logics of technoliberalism, technology advances humans toward a post-racial future by asserting a post-labor world in which racial difference, along with all human social difference, is transcended.[146]

Vora and Antansoski argue that this logic is especially prevalent in robots that labor in the global south invisible. More specifically, they argue that nonhuman robots performing tasks historically done by marginalized human beings still rely on exploitative labor practices that disproportionately harm workers in the global south. Upon further analysis, this dissertation illuminates how this logic carries over to other kinds of automated labor described in this dissertation. When we can no longer put a face to the underpaid public speaking teachers and child behavioral caregivers who do communication labor, we may feel less of an ethical obligation to regard that labor and those who do it with respect. Put more simply, rather than compensating people more for this work or respecting their time, let's just get a robot to do it for free without complaining.

To expand on Coleman's work, not only is machinic rhetoric effective because of the persuasion of machines. The reasons we may find machines persuasive and helpful is not just

precisely that they are machines, but precisely because they are not human. As detailed in the previous chapter on generative AI, human laborers can complain, demand better conditions, and create inconvenient ethical dilemmas for their employers. Rather than question or attempt to eliminate the conditions that lead to this, AI tools that cannot talk back seamlessly take their place.

Moreover, the nonhuman design of these devices may contribute to the superior ethos assigned to AI in the public imaginary that can lack accountability. AI tools such as Orai turn their own failures and inaccuracies back onto the users. As discussed in the first case study, when the app instructs the user cannot understand the user's speech. We unquestioningly place our faith in machines because machinic ethos offers a seemingly objective expertise without the possibility of subjective judgements made by human beings.

This dual function of servitude and unconditional expertise may seem like an unlikely pair at first. How could a machine act like a guilt-free servant or undervalued laborer and hold valuable knowledge we rely on? The first human parallel that comes to mind are underpaid teachers who work long hours but provide important knowledge for students in a large institution. The roles we imagine AI will take on in communication reflect this parallel. The case studies in this dissertation reveal that AI designed for human communication often takes on the position of teachers or some kind of caregiver.

Both current consumer products and public imaginaries of AI's potential further demonstrate this relationship as university administrators publicly speculate about replacing striking graduate student teachers with artificial intelligence. About a month before this dissertation is set to be defended, a dean at Boston University suggested that professors turn to generative AI to replace the labor of graduate students on the picket line.[147]

While AI has yet to fully replace human teachers, these imaginaries of what AI could do when human workers dare to be inconvenient are more than a figment of the imagination. Not very long ago, super smart computers that could talk like HAL 9000 in *Star Trek* and sex robots like those featured in *Westworld* were imaginative characters in science fiction films. These devices now exist as consumer products for anyone to purchase. Perhaps we ought to take people at their word when they imagine artificially intelligent solutions to situations labeled inconvenient to those in power.

R3: How does the use of artificial intelligence in human communication shape ideas of useful communication?

Use and usefulness is inherent to discourse about artificial intelligence. These tools, or *techne,* are used by users to do something supposedly useful. So, what is the use of artificial intelligence in human communication? As I discussed previously, ideas of self-improvement, "fixing" communication, and enhancing human life are common themes among the appeals made for introducing AI into human communication. The usefulness of AI in this area is rooted in the assumption that there are more useful ways to communicate and types of communication that are useless.

In the second chapter of *What's the Use,* Ahmed explains that human bodies are only rendered useful if they are useful for capitalism, like a blacksmith's arm being valued because it can make goods to sell.[148] When AI devices like Moxie are used to render children's interpersonal and emotional communication more useful, a singular ideal of communication emerges that is determined by a data analysis. In this process, other ways of communicating are cast aside as useless. From the speech hygiene movement to medical institutions, systems of power have a long history of pathologizing certain forms of verbal communication as less useful

because of ableist conditions under capitalism. AI in communication enters a rich history of problematizing non-normative communicators under the guise of a data-driven and supposedly objective evaluation.

These enforcements of normative communication are more than theoretical. Use is not just a function of technology but a technique of control where ideas of usefulness mask violence towards anyone who does not fit the mold. As I mentioned earlier in this chapter, AI designed to complete tasks such as evaluating public speaking are given data and curriculum that many of us use to teach our public speaking classes. Part of deviating from the limited binaries AI perpetuates may involve questioning our existing practices as communication educators.

In addition to what kind of communication is labeled as useful, the sorts of communicative labor we collectively imagine these machines accomplishing raises some concerns. Whether AI is used to write an email or coach a public speaker, these systems treat language and expression as data. For example, generative AI chatbots arranges words like formulas based on the work of human writers. We lose something important when communication is increasingly filtered and understood through the replication and rearrangement of a database housing human expressions. Not only does this potentially plagiarize from others, but it limits our imagination to the confines of this database.

A Useful Scholarly Contribution and Useless Rhetoric

If I must make this research of use, then I suppose what other scholars ought to extract from my work is a need to think beyond utilitarian frameworks of rhetoric. I understand the desire to respond to common misconceptions that rhetoric is simply manipulative or "empty rhetoric," but we must interrogate how tendencies to defend our practices and studies as useful might participate in capitalist ideals in process of seeking validation. To be clear, this is not

about asking if rhetoric is useful, but how ideas of useful rhetoric fit within the larger social order. I cannot count how many essays I read over the years that describe the *use* of a rhetorical tool or concept to persuade others. But by "use," what is typically meant is its ability to increase the power and profit of the rhetor. To understand rhetoric beyond its uses in achieving the will of the rhetor, our field could benefit from further examinations into useless rhetoric and the rhetoric of (mis)use.

I am not trying to imply that rhetoric itself is useless. What I mean by useless rhetoric is communication that might be deemed useless or without purpose under capitalism. The origins of public speaking education tell us that we speak publicly to inform, persuade, or honor something. This framework enforces the idea that communication often exists to fulfill a goal or particular use. While that may be true in many cases, I argue that the communication we deem worthy of study should not be purely transactional. Rather than develop a novel theoretical concept throughout this dissertation, I want to offer a provocation and ongoing question for our field. My case studies identify a problem in the rhetoric of technology and perhaps rhetoric as a whole where our fixation on useful communication limits our imagination. So what might a useless rhetoric or the rhetoric of (mis)use entail?

This question is largely inspired by Sara Ahmed's response the problems of utilitarianism. She puts forth the concept of queer use as "an ethics of finitude, an appreciation of the wrinkle or the scratch, expressions of time on the surfaces of bodies and things, loving what does not, and will not, last"[149] Put another way, we might view people as less disposable the more we embrace unconventional and seemingly useless practices. When we reevaluate what people, things, and actions are valuable then we might begin to resist the structures that devalue us.

In the context of rhetoric, we might think about what communication practices are labeled as disposable or mundane. In the case of Moxie, communicating with or instructing children with behavioral differences or trouble regulating emotions is cast aside as an undesirable task that may better suited for a robot. In the imaginaries of generative AI discussed in the final case study, tasks such as writing emails or shorter messages are characterized as boring acts that keep humans from pursuing more enriching activities and ideas. Similar to queer use, the rhetoric of (mis)use might be understood as using tools and ideas beyond their intended use. This misuse could be deliberate and resist the original purpose. It could also be accidental or seemingly random. In the process of (mis)use, we realize the potential of things beyond the way they are presented as useful. In my first case study, I offer an example of (mis)use in the form of ESL speakers using a public speaking app to work on their English-speaking skills. They are not learning to become better public speakers; they are learning to speak in English. This instance demonstrated how AI designed for human communication will be used beyond its intended purposes and by communities it may not have targeted.

Some could argue that this example of (mis)use does not challenge power structures because it is teaching people how to conform to dominant languages like American English. That said, it may be helpful to provide a hypothetical related to these case studies. Say we reimagined how to use generative AI and what professions it would be most useful for. Instead of replacing poorly paid helping professions like teachers, AI might be used to replace finance investors or corporate executives who often make data-driven decisions much like artificial intelligence. Maybe the annual salary of these highly paid positions could be reallocated to underpaid workers or better healthcare plans to incentivize employee retention. In the process of (mis)using AI systems designed to take on less valued labor, we can rethink what kinds of labor contribute the

most to the functionality of organizations and are worthy of more recognition. We might even begin to see some kinds of knowledge as irreplaceable and incapable of automation.

Perhaps there are other case studies where technology, tools, ideas, or rhetoric are used differently than they are "supposed" to be utilized. How might these moments illuminate the lesser-known potential of these things or radically reshape the purpose of a seemingly ordinary thing? In some of my other work, I explore how supposedly apolitical technologies are applied to political resistance in a creative manner. In a rhetorical criticism of the Holograma Por La Libertad protest, I examined how protesters (mis)used holograms to represent dissenting human bodies in a place where physically protesting in person was forbidden.[150] Further work must be done to understand the rhetorical impact of intentional or unintentional (mis)use, and its potential for resisting power structures.

All this talk of uselessness certain provokes thoughts about how my research might be used. I do not want any of my work used to inform corporate marketing strategies for AI products, but our discipline's response to the increasing use of AI in communication leaves me feeling hopeless at times. As I mentioned in the introduction, just two years ago I walked through the vendor booths at the National Communication Association annual conference to find a company with an AI public speaking app nestled alongside academic publishers.

I can write about the potential harms of AI in human communication and present that work to people in these spaces, but is it of any use if I produce it at institutions that regularly develop advanced AI and collaborate with major AI corporations? I do not know. However, I do know that this dissertation is intentionally useless to organizations that see AI and technology corporations as an inherent part of their future. I will not participate in the automation of broken systems that already struggle with how to find "use" for communication that is not normative.

I will say this. At a conference where I presented parts of this dissertation, an audience member told me they found my approach a bit pessimistic and asked if AI could be useful to communication educators in any way. I understand why someone might process my work this way and look for solutions. Upon further reflection, I think I should have told that person this: Yes. AI can be very useful for Communication Studies, but useful for whom?

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