# PREFACE

*Lios enchim aniavu. Inepo Marisa Elena Duartetea. In hapchi Marco Antonio Duartetea into in ae Angelita Molina Duartetea. In wai Carlos Antonio Duartetea into in wai Micaela Calista Duartetea into in wai Alejandro Antonio Duartea. In havoi Agustin Ruiz Duarteteak into in haaka Margarita Cervantes Duarteteak. In apa Juan Molinateak, yo'owe yo'owe, into in asu Maria Amacio Molina Tosaim Kavaikame.* I write for my relatives, and I write for my friends, who work hard to uphold their tribal ways of life.

The word is bound to the breath, and the breath is bound to the spirit. The word is a loose bead running on a cord connecting the breath and the heart and the mind. The mind is filled with ideas, and these ideas are like stones. The stones are the children of the earth's fine inner workings, upheaved from mountains and polished smooth by rivers, oceans, and winds. Every stone belongs somewhere. Every stone comes from somewhere. Eager to please one another, human beings rush about filling their heads with ideas the way children fill a basket with stones when they go scrambling about the desert or the rocky beach.

At times I would take breaks from thinking about the impacts of the Internet in Indian Country and walk to a section of Cabrillo Beach, a shoreline in Tongva territory, off the southern coast of Los Angeles, and listen to the ocean tumbling rocks against the shore. At times I visited Lake Washington and beaches on the shores of the Puget Sound—the Salish Sea—under the gaze of Mount Rainier. For one autumn season I meditated every morning in a friend's yard filled with stones and watched the light change against the Tucson Mountains and Mount Lemmon, ranges filled with stories of pilgrimages, miracles, spirits, and survival.

Young children throw rocks at one another out of curiosity and spite. Adults throw ideas at one another out of curiosity, and sometimes also out of spite. We can forgive a child throwing a stone. It is more difficult to forgive an adult for hurling a monstrous idea at another human being. When teaching students about racism and colonialism, I remind them, "You are educated human beings. Remember that your job is to promote knowledge and wisdom, and not ignorance. Even top professors are capable of fomenting ignorance."

I based this work on the following risky ideas:

1. Human beings are also herd animals. They are capable of organizing beyond the level of the individual. They orchestrate activity at the level of a community, and articulate their identities based on geopolitical locations and status. En masse, they become swept up into communal systems of belief.

2. Human beings are inherently creative. They create systems and structures in this world through the use of tools. The physical manifestation of these systems and structures reflect human beliefs over time.

3. The present-day use of the word *technology* is laden with present-day beliefs about progress, scientific and ethical advance through computing, and the superhuman conquest of time, space, history, and environment. There is a belief that being able to speak in code—that is, programming code—parallels the decoding of the human genome and the dark matter of the multiverse, and that somehow this process of coding and decoding is meaningful for all mankind. These beliefs derive from a Western European Enlightenment history of ideas. Like a magic bullet, the word *information* can at once comprise programming code, genetic code, and the nearly immeasurable mass that one nanoparticle passes off to another when they collide in the vacuum between all other known and measurable subatomic particles.

4. The large-scale forces of Western European modernities have resulted in the creation of a global class of humans referred to as "natives," "aboriginals," or "indigenous" persons. Across modern nation-states, that nomenclature refers to a historiographical moment, when nation-state authorities were charged with classifying all resident human beings as subjects or nonsubjects, citizens or noncitizens, slaves or workers, and so on. The words *Native American*, *Aboriginal*, and *Indigenous* are embedded with a tension of belonging and yet not belonging to the modern nation-state. For an American Indian, it is to be called by all non-Natives an alien within one's own territory, in the shadows of one's own grandmother mountains.

5. Various fields of science are at present dominated by those who believe that techno-scientific advance must come from a Western European his-

> tory of ideas and not from, for example, Tsalagi histories of ideas, Hiaki histories of ideas, A:Shiwi histories of ideas, Anishinaabe histories of ideas, Chamoru histories of ideas, and the like. Only recently have a few scientists working in their universities come to agree that Native ways of knowing compose a source of scientific understanding. "Native ways of knowing," "Indigenous knowledge," "Native systems of knowledge"—all these phrases refer to a complexity of understanding about the nature of the human universe. As scientists—and especially as information scientists—we are only at the beginning of our understanding.

I'm Yaqui. I'm a woman writing in the sciences. I often write and research far from my home, the Sonoran desert landscape around Tucson and the northern Chihuahuan desert in southern New Mexico, and I often write through fields of science that, thus far, are inadequate in terms of language and theory for scoping the lived realities of present-day Native and Indigenous peoples. If the word is a loose bead on a cord connected to the breath, the heart, and the mind, and I am trying, from my lived experience and ways of knowing, to share that word (or words) with another human being who does not share the same ethical orientation (heart) or ways of problem-solving (mind), then what can be the significance of the word I seek to share?

The risks I have taken as a thinker are lesser than the risks I take as a writer, assembling these ideas like rocks in a basket, which I now present to you in this form, as a manuscript. This is the nature of writing. Once a story is loosed into the world, it no longer belongs to the writer. It belongs to those who hear it, and especially to those who retell it. At a certain point I can no longer insist on what is right and wrong about an idea that I have written. I can only say, "I thought quite a lot about selecting this particular idea and explaining it in this particular way." The rocks get taken from the basket, broken into smaller pieces, polished, or transferred into the baskets of others.

But what about the basket? That is the real contribution here. I am weaving a container for others to reuse. What might the Native and Indigenous peoples of the world have to say about their experiences with information and communications technologies? What might our experiences as Indigenous peoples teach us about the ways we conceptualize this ineffable, somewhat immeasurable phenomenon we pursue, which we are calling "technology"? How does it relate to our dedication—*itom herensia, itom lu'uturia*—to uphold our tribal ways of life?

I pray for the words to have meaning, and for the writing to be clear and inspiring. As the methods are true, so is the writing here.

*Lios enchim hiokoe utessiavu.*

Marisa Elena Duarte