Another Other: An Unlikely Path to a Future United World – and What That Future Would Think about Us

Lindy Elkins-Tanton

We are separated from the future by a chasm of imagined apocalypses and miracles. We are separated from the technological foundation of our society by a chasm of scale between the individual self and the global manufacturing network. And we are separated from each other by chasms of bias and fear. Despite – or maybe because of – some of our looming apocalypses, our future selves might be less separated from technology and from each other. Population decline, the creation of self-sustaining Throughline communities, and the eventual discovery of alien life create possible futures populated with viewpoints that might see us, the Before Time people, as barbarians or, conversely, as technological gods.

Who is self, and who is other? You, my friend, are self. My family is self. So are my neighbors and my town. But out there, there are others. People who are too different from me, from us, and also, people who are distant in time. The future people, the past people. They are not us.

We automatically, as automatically as a honeybee returning to its hive, think of "self" as more trustworthy, more truthful, more relaxing. Other is less trustworthy, less intelligent, probably even dangerous. We assume that people who don't agree with us are irrational. We assume that people in the distant past were less accomplished. We assume – in general, we assume without knowing we are assuming, all the time, about everyone, self and other. But what if we imagine people in the future looking back on us? Will we be the past, and will the future think us less accomplished and less sophisticated?

Our seeming inability to consistently trust and connect with others is our constant undoing: biases, discrimination, distrust, enmity, schisms, factions, anger, aggression, attacks, war. The world events that frighten us also incite us to cling even more tightly to our home group, to distrust even more. Us and Them thinking, therefore, is the slippery slope to killing.

Unfortunately, the hopeful promise of a united world through the internet has not occurred. If anything, the way social media has evolved brings differences into

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sharper relief with less empathy involved. We are in a crisis of scale : being global appears to be a myth, or a marketing gimmick, or a dream, and as a result the scale that's in crisis is the scale of human relationships.

Despite the failure of the internet to bring us together in our hearts, the internet has helped immensely to bring together our commerce. We are now, for better or worse, a technological species. In most parts of the world our very survival relies on technologies from far away, made in ways and by people we do not understand. Perhaps it is only a water pump, or maybe it is the whole electrical grid system and the HVAC on the roof of your house, every bit of it beyond your ability to build or to fix.

The scale of technology and its very complexity require a global scale for invention, development, production, transportation, and use. The compressor in your whole-house air conditioner needs valves made in South Korea, and it runs on electricity created by hydropower almost a state away, transported to you via transformers made in Europe, which have a year-long order timeline in the case that one goes wrong.

We have a global scale of everything except our sense of self. Our human hearts and minds live in villages of people we think of as ours. The scale of self and the scale of technological civilization are entirely different. Humans do best in villages. We were villagers, clansmen, to begin with, from the beginning of our species and before, into precursor species not yet known, and family-sized groups allow our hearts to thrive and our brains to function.

This is the chasm of scale. Our hearts and psyches remain rooted in the self and a small group, our village. The rest of our planet recedes away into enormity at increasing rates. The complexity of technology, the networked nature of our global communications and manufacturing supply chains, the oceans of information, the very expansion of our universe creates a gulf between our tiny local selves and the inhuman web of creation that we have made and observe beyond us.

We need the human relationship for our emotional lives just as much as we need the human relationship for learning and passing on knowledge. With this affirmed, that knowledge passes locally from human to human even though this same knowledge is the basis for the global technological world we live in, the uneasy tensions between scales of relationships become clear. We need our small group for our comfort and relationships, and we need the globe for our commerce, manufacturing, and communications, but a chasm of scale lies between them.

Think about the challenges of passing on knowledge. Amazingly, every day it seems some company or laboratory has lost the ability to create the products or perform the processes they used to. The product doesn't turn out the same, the person who used to tune it has retired or resigned. We can't even make concrete as good as the Romans' concrete.

Even if it's all written down, the knowledge does not transfer. First, most people don't read instructions and procedures manuals. Second, manuals cannot ever

be detailed enough. The tacit knowledge, specifics that are hard to put into words or perhaps are unconscious entirely, will be missing from the manual.

Thus, the recipe for how to do things is lost unless the training is done shoulder to shoulder, person to person. Think of how few things have been continuously done the same way for centuries. One example is the Ise Shrine in Japan, which has existed for a thousand years. How do they train each new generation to staff, maintain, and operate a shrine? Together, they rebuild the shrine every twenty years. Every twenty years, effectively two or three times in a person's working life, they participate in making a new shrine from scratch.[1] That is a human scale for continuity.

We need that human dyad, two people knowing each other and working together, for learning and for knowledge transfer. We need the family and the village, tens to a few thousands of people, for our own relationships and happiness and sense of place. And then, we need the whole globe to make the whole globe work. These scales of self and other, and the forces that might let us think of the peoples of the future as "self" and therefore view us with compassion, even with admiration, can be fragmented or enhanced by the events that shaped that distant future.

Thinking about this teetering edifice of advanced technology and the knowledge it requires, and the coincident deepening of schisms and return of extremism worldwide, what future events might drive what the future becomes, in ways that would bifurcate the future from our current present? In this essay, I consider two events that will or would entirely change the path of human civilization, and therefore the way the future will think about us, the past: the end of population growth, and the possible discovery of life off this Earth.

The end of population growth is bringing the near-future arrival of precipitous population decline. The very complexity of technology and the multilayered hierarchy of technologies and parts and pieces needed to build complex mechanisms, coupled with the primitive way humans share knowledge, makes our technological civilization desperately vulnerable to workforce loss. The knowledge held by just one special expert, if lost, ends the ability to make that thing. If we think it was bad during the early years of COVID-19, wait until the global population decline begins in just a few decades.

The global population will begin to fall perhaps as soon as 2060, according to the UN Department of Economic and Social Affairs.[2] From the point of view of environmental, food, and health sustainability, this is a good thing. But from the point of view of the retention of human knowledge, this is almost an emergency. People will retire from the workforce with their expertise, and there will not always be someone there to replace them. Even if shoulder-to-shoulder apprenticeship training were always possible, there would not be sufficient people to be apprentices.

Precipitous population decline and the accompanying loss of our technological base raise the possibility that the future may never think of the past because the future will not have a mind for thinking, and we of the present will then be to-

gether like a single sleeping language, sleeping the long sleep of the dead with no one to speak our names.

The second, less certain future event is the discovery of life off this Earth, the answering of the perpetual question, are we alone? We've been looking for decades, indeed for centuries and millennia, and if it's possible to make such a statement about a complete unknown, we are closer to discovery than we have ever been thanks to accelerated space exploration and new instrumentation. Discovery of other life in the universe would change humans' concepts of ourselves forever. As astrophysicist Evgenya Shkolnik writes in *Slate*, "Right now you're probably aware of many differences between yourself and your most annoying neighbor. But if you imagine the two of you in another country whose language you do not speak – you and your neighbor would suddenly feel close. The existence of a 'them' changes the 'us' forever."[3]

You may feel that someone in an opposing political party seems incomprehensible, but they become a center of comfort and familiarity when compared to a hard-shelled digging community of wildly intelligent underground Martian creatures, for example. Taking in a real difference – ourselves compared to the new alien life – will make even perceiving differences between ourselves and other humans almost impossible, like the impossibility of perceiving the difference between one stitch of colored thread and the next when standing back and looking at a vast tapestry. The discovery of another life could shock us into remembering who we are.

Will we lose our technological capabilities and devolve into a new Dark Ages? Or will we evolve? Will the future have learned from the present and realized that humans need a human scale and our existence and history and relationships will continue?

The ways the future would think about our present are dependent, of course, on what those futures are and what those future people are thinking about, what their cultural paradigms are. Here are three possible, connected futures based upon population decline and the discovery of life off this Earth : Near-Extinction, *Snow Crash*, or a New Unity.

Scenario 1 : Near-extinction looks back at us.

Driven by the extreme population decline that began in the mid-twenty-first century, the twenty-third-century world has lost its ability to make most technologies because of the erosion of knowledge as people retired and were not replaced and, as a result, like a whole tree diagram of dominoes, entire industries collapsed. Tacit knowledge has been lost. A new Dark Ages has set in, with scattered towns finding ways to survive through the gradual return from the heat madness of climate change to a world that makes humankind more sustainable.

The past glows with beauty, mystery, complexity. Thinking about the highways and airlines and nuclear power stations, the planes and satellites, the radio

dish networks, prepared foods, gene replacements, and customized silicon chips only causes us, the people of the future, pain, though, because people in the past were better. People were *more*, in knowledge, in achievement, in reach. They knew things and could do things we no longer know or can do. But while they were more, they were also the creators of this broken world.

And so we hate that past at the same time we are obsessed with it. We read their books, and so we know they broke apart in the end just like the Holy Roman Empire, faction against faction, the rich consuming and using in discontented oblivion, and the poor fighting in the streets. Some of them worked on using less oil and eating more local foods, and here we are today, less oil and more local foods. But without other options.

We live among their relics – the skyscrapers, jet planes, nuclear plants, streetlights – all the things that require silicone chips, which are no longer manufactured on Earth. No chips, nothing that runs on a little computer brain works anymore. Some things can be repurposed, returned to how they worked in a previous world, but it's always a workaround, a compromise, and a sadness, nothing perfect anymore.

No GPS. Kids had to learn how to read maps again. Captains had to learn how to navigate boats. The corner stores sell map books once again. No turbine blades, so much less electricity. We no longer have information on what is happening all over the world all the time, and maybe we realize, we never did really know. Complex machines and production processes often rely on multiple parts that are only made by one group in the world. Once the innovators are lost, the production can't be recreated. For want of a nail the shoe was lost, for want of the shoe the horse was lost….

William Gibson is thought to have said, a century ago, "The future is already here. It's just not evenly distributed yet."[4] He thought he was talking about those communities on Earth with spaceflight, with quantum computing, with instant health care. But it turns out that that was not the future – those are only features of the past. It turns out that the future was the telegraph, plowing with mules, salvaging from dumps. That future existed in Gibson's time, too, but he thought it was waning, not waxing.

Now, our fantasy novels are of the miraculous technological past, even though we know that their novels were about the miraculous technological future. Our night sky has only a few satellites left moving against the stars. We read that they had thousands, if such can really be imagined. We dream, is there someone somewhere still controlling those satellites? Some of us have radio sets that still work and we can listen, sometimes, to the seemingly random static that gets sent back. But perhaps it means something to someone.

We read about huge medical imaging machines and proprietary medicines and the diagnosis and treatment of increasingly obscure diseases. Now, more people

die, but we can measure an increase in the hardiness of our species as we witness those who can survive with less care.

The chasm of scale has been diminished. The scale of me, the future human, and the scale of complexity of the technology I use are closer together. It's relaxing. I feel more in control, I think, than the people of the past. But I weep sometimes as I watch those lonely satellites cross my dark night sky.

Scenario 2 : Throughlines from the present populate a decimated future with *Snow Crash*-like islands of technology.[5]

Like the first scenario, radical population decline has so moth-riddled our complex supply chains that most manufactured goods are no longer available, and much of our communications and transportation networks have shrunk, but town-sized Throughlines of knowledge were set up before the decline, and they form a *Snow Crash*-like Balkanized network of the information and capabilities of the past (which we used to call the future) in an otherwise near-agrarian world.

As population declined, civilization factionalized, and some people understood they needed to create not just vaults with seeds in them, not just a "civilization kit," but communities of people who are committed to keeping the tacit knowledge alive for key human processes : the arts, education, medicine, manufacturing, communications.[6] These are group activities that require collaboration and a common vision. The Throughlines, as they are called, saved us, and so we think of those makers and inventors who founded them as our wise men, the idealized leaders from a previous age.

Such leaders emerged as civilization was finally undeniably falling into ruin and chaos, when the heat madness was beginning, when society was factionalizing even further after the last World War created even more enmities. In that more distant past, those people who hated and fought and broke apart, they were idiots. Society broke apart into religious extremism and suppression, except for the leaders of the Throughlines.

The Throughline founders are far enough behind us now that we mainly know them as myths. Think of King Arthur : during the twenty-first century, as vivid as any living person, but based on shreds of mentions of a distant person who was probably just a local leader, and whose name was not really even Arthur. The Throughline founders are as vivid to us people of the future as Arthur used to be ; each future creates its own myth of the past.

Granted, the most thriving Throughlines were founded in places with the least climate impact. They didn't get flooded out or desiccated. There was more equity in Throughlines that understood that more diversity of viewpoints creates more excellence, that a skill-based technological society creates inequality, that inequality creates division, that division breaks the society. The best Throughlines avoided the rural-urban divide. They created equal access to housing and services, not

because they were terrifying socialists, but because they knew it created a united society.

But we have watched the past, as much of its output in writing, recording, and video as we can stand to look at, and we know that organizations and nations and even ideas have lifetimes. They evolve, grow, are beautiful, mature, are revered, and then decay and rot. How can we expand that happy youth and middle age from decades or centuries into millennia?

Apprenticeship. Not losing the recipe. Rebuilding. Tradition. We look at the past and we know those people had some glory, but we also know they were mostly ignorant and obsessed only with their own dusty feet. In the past, the haves and have-nots lived in close proximity. And now that's more true than ever: people outside the Throughlines live very different lives, and in some regions it's guerilla warfare.

That conflict just serves to unite the people in the Throughlines. And we have drones, and so we always know when the others are coming. In the future, some Throughlines may wish to expand their control and rule over others. There may be broader war. There's nothing like inequality to create conflict. Within the Throughlines, we have so little inequality and so little conflict, but the chasm between ourselves and the outsiders is even greater than the chasm between the outsiders and the technologies of the past, which we still possess.

Scenario 3: Discovery of intelligent life on Mars creates an age of unity on Earth.

In the Throughline towns where technology, wealth, and communications are maintained at near-past levels, space travel is also continued. And then, an underground society of intelligent creatures was found on Mars.

The strangeness of the aliens made our human differences seem small. Within months, implicit biases based on skin color, gender, and other visible clues vanished; any human was a welcome friend in comparison to the aliens. We humans were as alike as two stitches in the same fabric. The aliens, though, were as different from us as a metal robot would be to our human tapestry.

The snap assumptions of our reptile hind-brains were put to much more apt use than when we used them to judge each other: identifying and protecting us from a real *other*, not the other gender or the other race or the other culture, but *another other*, the alien.

We have come to think of the people of the past as barbarians, actually. With all the focus inward toward ourselves, hierarchy used to mean everything. They cared so much about power (money) and pleasure (money) that they could not tear themselves away long enough to learn what a fragile state they were really in. The barbarians are vivid to us, the people of the future, now that aliens have been found: the barbarians are the people of the Before Time.

As we have now learned to see other humans as similar to ourselves, and we stopped most of our snap judgments, we also learned to think more slowly in other ways. We decided, in a moment of brilliance, that slow and measured consensus was better than the constant push for speed, the quarterly report, the fifteen minutes of fame, the one-minute reply.

We know that equality is key to peace, and now that we have an example of extreme inequality (burrowing aliens with flashes of astonishing insight, compared to humans striding about in the sunlight), we have become even more equal here on Earth. There are three pillars of equality: equal access to opportunity, better social protection systems, and less prejudice and discrimination to allow equal participation. The first two had been solved at times but never the third, until the aliens appeared. Now all we humans are alike.

Except the people who have touched the aliens. Maybe after the great pandemics, people developed an exaggerated fear of germs, but it's nothing compared to the new class of untouchables, those who have touched the *other*. Maybe it's all fantasy, or maybe they are changed in some way. Who's willing to take that chance?

In response to the discovery of these communicating aliens, as incomprehensible as much of what they said was, in the face of the biggest challenge to our notion of humanity that our history had recorded, we sat and talked and thought. We did not act.

We did not act for a long time. We thought about the people of the past, their plans for aliens . . . mostly killing. That did not really appeal to us. We, the people of the no-future, are together. The barbarians of the past are *them*, *other*, as much as those aliens on Mars are.

The past barbarians always wanted more. Every day was dedicated to more. We wish, in the face of the collapse of most of society and the discovery of *another other*, not for more, but for the same. We wish to continue as we are. We have been cured of the addictions for change and for more. Now we know human hierarchy is a distraction. Octavia Butler said so in her book *Dawn*, and we love that moment when the past predicted us, the future.[7]

ABOUT THE AUTHOR

Lindy Elkins-Tanton, a Member of the American Academy since 2018, is Professor and Director of the Space Sciences Laboratory at University of California, Berkeley. She is the author of *A Portrait of the Scientist as a Young Woman* (2022), *Earth* (with Jeffrey Cohen, 2017), a six-book reference series on planetary science, and the forthcoming *Mission Ready : How to Build Teams that Perform under Pressure* (2026).

ENDNOTES

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[5] Neal Stephenson, *Snow Crash* (Bantam Books, 1992).

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