

Dear Humanity,

It feels strange writing you a letter, I admit. Letters are generally addressed to an individual or a limited group of people. It's unusual to write to humanity as a whole. You don't even have a postal address, and I doubt you get much correspondence. Still, I thought it was time I wrote.

Obviously, I realise I can't possibly reach you completely – if only because humanity not only consists of every person who's alive right now but also of everyone who's ever lived. That's an estimated 107 billion people. And then there are all the others who haven't been born yet – hopefully there will be a great many of them. I'll return to that later, but before we talk about the future, I'd like to look back.

We've come a long way, dear humanity.

No other animal has shaped its surroundings as thoroughly as you have. It started sometime around 200,000 years ago. Back then, there was no Nobel Prize for coming up with the brilliant idea of using animal skins to keep warm, or controlling fire, or inventing the spear or the shoe. All those were exceptionally clever inventions that not only enabled you to survive in your unruly original natural habitat but allowed you to shape it to your will and to dominate it.

Human beings weren't always so powerful. For long time, you were a marginal, unremarkable species located somewhere in the middle of the food chain, with no more control over your environment than gorillas, butterflies or jellyfish. You stayed alive mainly by gathering plants, catching insects, stalking small animals and eating carcasses left behind by much stronger predators, of which you lived in constant fear.

Did you know there's more genetic variation in the average chimpanzee troop than there is among the 7 billion people living on earth today?

Researchers believe this is because human beings once nearly became extinct and today's entire global population descends from a few survivors. This fact compels us to be modest. Actually, it's a miracle we're here at all.

Physically, compared to many animals, human beings are surprisingly fragile creatures. What other animal enters the world naked, screaming and relatively helpless, easy prey for any predator that comes along? A newborn lamb can walk within a few hours; it takes a human child about a year to stand on its own two feet. Other animals have specific senses, organs and reflexes that enable them to survive in specific environments, but you aren't naturally equipped for any habitat in particular. Yet this apparent weakness has also proved to be a strength, enabling you to spread from the savannah to the North Pole, the ocean floor and the moon! That's a unique achievement.

Some people even think you should go beyond the earth and populate the universe. In itself, that's a fine idea, if only to prevent your being wiped out someday when a massive meteorite hits the planet. That would be a shame. To be honest, though, I think it's a bit early for you to seek refuge on other worlds. First, let's try to sort out some issues on our home planet. Because it has to be said that your presence on earth has caused problems: global warming, deforestation, plastic in the oceans, ionising radiation, declining biodiversity. It's enough to make a person depressed. It sometimes seems as if you do more harm than good!

I often encounter people who believe the planet would be better off if you weren't here at all. I hope I won't offend you by saying this, dear humanity, but I feel obliged to tell you that there are those among us who mistrust you, look down on you with scorn, or simply dislike you because they think you're ruining the planet. I hasten to add that I'm not one of them myself. I've always had trouble understanding such misanthropy, because ultimately it's a form of self-hatred.

Where does this mistrust of humanity come from? On further investigation, I discovered that those infected with it have a particular image of humanity that is, to my mind, completely incorrect: they see it as an anti-natural species that doesn't truly belong in romantic, beautiful, harmonic nature. I believe this is a naive prejudice that won't help us to move forward, and we should get rid of it as soon as possible. To understand this idea, we need to start at the beginning.

The earth came into being more than 4.5 billion years ago. At first, it was no more than a lonely rock in space, and it took more than a billion years before the planet's biosphere began to form. After that, it took about 2 billion more years for the first multicellular plants to evolve. Another billion years later, during the Cambrian explosion, an entirely new kind of life form appeared on the planet: animals.

The first animals emerged on the scene 500 million years ago. We don't know how plants, which had been around for a billion years already, felt about animals showing up. As you know, plants like to be left in peace; they don't move much and draw sustenance from the sun and soil. Now, I don't know what plants think, since I can't talk to them, but it doesn't seem impossible that they found it hectic and uncomfortable having to put up with animals all around them. Perhaps they even saw animals as unethical, not just because they were fundamentally rootless and lived at an unimaginably fast pace but more because they did something that in those days was completely new, unheard-of and abominable: animals ate plants.

All things considered, the arrival of animals couldn't have been much fun for plants. **Evolution goes on**, though, and while an earth populated solely by plants was fine as far as it went, it was also a bit dull, or at least less exciting than one that contained animals too (I'll spare you a description of what it was like back when earth had no plants, only rocks, which was even more boring).

So, back to the role of humanity. **Just as the emergence of animals shook up the plant world, your arrival, too, has duly caused trouble**. Remember, you only just got here. Animals have been around more than 2,000 times as long as humans, and simple plant life more than 7,000 times as long. But I'm not saying that to compel you to modesty, because I think you're amazing.

Although you are fundamentally a species of animal, there's something entirely unique about you, which has less to do with your physical human build – which, as I said, is less than impressive – and more with your

inherent tendency to use technology. While other industrious animal species transform their surroundings – think of beaver lodges and termite mounds – none of them does it as radically as you do. I’m using the word “technology” in the broadest sense: by “technology”, I mean all the ways human thinking has an impact on the world around us – clothing, tools and cars but also roads, cities, the alphabet, digital networks, and even multinational corporations and the financial system.

Ever since you came into being, you’ve been building technological systems to liberate yourself from the wilful forces of nature. It started with a roof over your head that protected you from a storm and has proceeded all the way to modern medicine for treating deadly diseases. You are technological by nature. But like the fish that doesn’t know it’s wet, you tend to underestimate how intimately your life is intertwined with technology and how much it’s done for you. Look at life expectancy, for example. At the beginning of your existence, the average human couldn’t expect to live much beyond the age of 30. Partly because of high child mortality rates, you could count yourself lucky if you stuck around long enough to reproduce. From Mother Nature’s perspective, this is entirely normal. If you see a pair of ducks with a dozen ducklings swimming behind them in springtime, you shouldn’t be surprised if there are only two, or with luck maybe three, left by the end of summer.

Technology is part of us, in the same way as bees and flowers have evolved to be interdependent. As bees collect nectar, they help flowers to reproduce by spreading their pollen. Human beings are dependent on technology, and vice versa. Technology needs us in order to spread out and reproduce. And humanity, what a huge help you’ve been on that score! Technology has become so omnipresent on our planet that it has ushered in a new environment, a new setting, that is transforming all life on earth. A technosphere – an ecology of interacting technologies that evolved after your arrival – has developed on top of the existing biosphere. Its impact on life on earth can hardly be underestimated and is comparable to, and perhaps even greater than, that of the emergence of animals 500 million years ago.

From an evolutionary perspective, all this is business as usual. Nature always builds on existing levels of complexity: biology builds upon chemistry, cognition builds upon biology, calculation builds upon cognition. But from your point of view, it's exceptional. I can't think of another species whose presence has sparked an entirely new evolutionary phase, breaking free of a DNA-, gene- and carbon-compound-based evolution billions of years old. Just as DNA evolved from RNA, your actions have made possible a leap to non-genetic evolution in new materials, such as silicon chips. Although this wasn't a conscious act, the consequences are no lesser for it. Your presence has transformed the face of the earth so fundamentally that the impact will still be visible millions of years from now. This is your doing, but as yet, you barely seem to realise that, much less have you been able to take a clear position toward it.

Now, I understand that this is far from a simple task, if only because you, humanity, are not a single thinking being but a teeming mishmash of billions of individuals, all with their own thoughts, needs and desires, who aren't really biologically equipped to think on a large-scale planetary level. Nevertheless, it seems to me to be the most pressing issue of the moment. You are standing at a crossroads. And that's why I'm writing to you.

With respect to the future, I see two possible paths along which you might develop a co-evolutionary relationship with technology: the dream path and the nightmare one. Let's start with the nightmare. Every co-evolutionary relationship – whether it's between bees and flowers or between humans and technology – runs the risk of becoming parasitic. Parasitic relationships, in contrast to symbiotic ones, lack reciprocity. A leech, tapeworm or cuckoo gives nothing back to its host; it only takes. Could the tension we feel around technology have something to do with this? In spite of the fact that we've been using technology since time immemorial, because it serves us and extends our capabilities, human beings are in danger of ending up being the ones who serve technology, of becoming a means instead of an end, of becoming technology's hosts. An example can be seen in the pharmaceutical sphere. Medication is undoubtedly a life-saving technology, but when pharmaceutical companies try to maximise their own growth figures by convincing

everyone who deviates from the statistical average in any way that he or she has a disorder and needs the appropriate drug, we have to ask whether they're truly serving humanity or just satisfying the needs of the industry and its shareholders.

Where exactly is the boundary between technologies that facilitate our humanity and ones that box us in and rob us of our human potential? The ultimate spectre is that you, humanity, ultimately become nothing more than the sex organ a larger technological organism requires in order to reproduce and spread. Life forms encapsulated within larger ones can be found elsewhere in nature: for instance, think of the intestinal flora that perform various useful tasks inside our bodies. Will we soon be no more than microbes in the belly of the technological beast? At that point, humanity will no longer be an end but a means. And I don't see that as desirable, because I'm a person, and I'm playing for team human.

Now for the dream.

The dream is that you wake up and realise being human isn't an endpoint but a process. Technology not only alters our environment, it ultimately alters us. The changes to come will allow you to be more human than ever before. What if we used technology to magnify our best human qualities and support us in our weaknesses?

We could call such technology humane, for lack of a better word. Humane technology takes human needs as its starting point. It would play to our strengths rather than rendering us superfluous. It would expand our senses rather than blunting them. It would be attuned to our instincts; it would feel natural. Humane technology would not only serve individuals but, first of all, humanity as a whole. And last but not least, it would realise the dreams we humans have about ourselves.

So what do you dream of? Flying like a bird? Living on the moon? Swimming like a dolphin? Communicating by sonar? Telepathy with loved ones? Equality between the sexes and races? Empathy as a sixth sense? A house that would grow with your family? Do you want to live longer? Maybe you could live forever.

Listen, humanity: you were once a relatively insignificant species, but your childhood days are over. Thanks to your inventiveness and creativity, you have raised yourself up out of the mud of the savannah. You have become an evolutionary catalyst that's transforming the face of the earth. This process is not complete. You are a hinge between the biosphere from which you sprang and the technosphere that arose after your arrival. Your behaviour affects not only your own future but the planet as a whole and all the other species who live on it. That's no small responsibility.

If you don't think you're equipped for this, you should have stayed in your cave. But that's not your style. You have been technological since the day you were born. The desire to get back to nature is as understandable as it is impossible. It would not only be cowardly in the face of the unknown, it would deny your humanity. We cannot imagine the future of humanity without thinking about the future of technology. You must move forward – even though you only just got here. You're a teenager, but it's time to grow up. Technology is humanity's self-portrait. It's the materialisation of human ingenuity in the physical world. Let's make it an artwork we can be proud of. Let's use technology to build a more natural world and map out a path to the future that works not only for humanity but for all the other species, the planet and ultimately the universe as a whole.

In closing, I'd like to ask you to do something. I'd like to invite every one of you – living and not yet born, on earth and elsewhere – to ask one simple question of every technological change that appears in your life: does this increase my humanity?

The answer usually won't be black or white, yes or no. More often, it will be something like 60 percent yes, 40 percent no. And you'll sometimes disagree with other people and have to debate the matter before you can come to an agreement. But that's good. If all of us consistently opt for technology that increases our humanity, I know you'll be OK. How? That remains to be seen. No one knows what human beings will be like in a million years, or whether there will even be human beings, and if so, whether I would recognise them as human. Will we accept implants? Reprogramme our DNA? Double the size of our brains? Communicate

telepathically? Sprout wings? I don't and can't know. But my hope is that in a million years there will still be such a thing as humanity. **Because as long as there's humanity, there will be human beings.**

From the core of my humble, imperfect humanity, I wish you happiness, love and a long, exciting journey. In the anticipation that you will bring forth trillions more people,
all the best,



Koert van Mensvoort
Founder Next Nature Network

PS Note to the individual reader: After you read this letter, please pass it along to one of your fellow humans. If you'd like to do more, you can also copy, translate, reprint and further distribute it. Humanity is all of us.