

A LETTER FROM 2028, AN OLDER AND SMALLER WORLD



SEATTLE,
WASHINGTON
JUNE 2028

Dear readers of 1999,

It is 2028, a warm day in June here in Seattle, Washington. My smart alarm has awakened me a few minutes late. During the early morning the alarm was scanning the net when it noted that auto traffic had come to standstill on Interstate 405 due to a construction accident. After checking with the intelligent assistants of the other participants in my rare morning face-to-face and confirming that a delay of an hour was acceptable, the alarm programmed an additional hour of sleep, which I greatly appreciate. I am 78 years of age, and even in my good state of health and arrested aging; an extra bit of sleep is most welcome.

Not so long ago, at the turn of the century, a person my age who was not retired was considered either most unlucky, or an eccentric. Now, just twenty-eight short years later the culture has made a 180-degree turn. A 78-year old who is not working is considered either unlucky or eccentric. This is quite a shift, as you can imagine.

Early in the 20th century the concept of "retirement" had been invented. It was a new concept for people, and came to mean that after a period of income-generating work lasting until age 65 or, in the latter part of the 20th century age 60 or even 55, one should cease income-generating work. The "final" phase of life was expected to be dominated by leisure, and paid for by savings and benefits accumulated in the employment phase of life.

Retirement beliefs of the 20th Century

A surprising number of 20th Century institutions were built around this specific retirement notion. In fact the entire industrial and postindustrial system was built on clear notions about when we learn, when we work, when we reproduce and when we retire. Three specific beliefs acted as the foundation for 20th Century retirement. First, age 65 was old, both literally and figuratively. Second, those over the age of 65 were deemed not capable of meaningful work. And third, since relatively few people would live long enough to retire, a modest tax burden on a much larger group of current workers would be sufficient to support the retired generation.

In 1900, the average life-span in the United States was 47, which was quite an increase from the 35 years that were

the average life-span when the country was founded. It was not unheard of for people to live to be 65, but it was relatively rare. More important, people over 65 were indeed old, more similar to the 85-year old of today. Since most work in the early 20th Century was manual and depended heavily on strength, it made sense to create a retirement system to relieve people of the burden, and not incidentally to make way for younger workers who were streaming in as waves of immigrants. As originally envisioned, a few years of retirement were to be a fitting reward for a lifetime of hard work.

Later it was noted that many people spent their golden retirement years in abject poverty, and thus the Social Security system was established in the U.S. in the early 1930's, mirrored by similar pension systems in other countries. Cleverly, the age for collection of benefits was set at age 65, because the planners knew at the time that the average life span was age 63. Thus, few persons were expected to actually collect benefits, with benefits going only to the truly needy.

Today age 65 is no longer old. In fact it is considered barely middle age! People are living and maintaining vitality longer, a phenomenon known as down-aging. While as recently as 2001 a 65-year old could expect to live an average of another 20 years, today a healthy 65-old looks forward to an average of another 35-40 years. I will come back to this in a bit. You see, there are immortal human beings living among us we are now certain, and that is quite a story. Before telling it, let's get back to those old assumptions about retirement.

The second 20th century belief, that people over the age of 65 were not capable of meaningful work, also flies in the face of today's realities. The primary work of today is knowledge work, requiring little or no manual strength. Research demonstrates quite clearly that maintaining mental activity can sustain a sharp mind far into old age, barring illness. It has become abundantly clear that the youth-oriented cultures of the late 20th century were short on wisdom, often the unique strength of elders. There are so many of us elders now that I suppose it can be argued that wisdom is not actually correlated with advanced age, but we like to think so. It can also be pointed out that we maintain muscle strength at a far higher level than previously assumed possible, with proper diet and exercise. Both mental and muscle tone are further enhanced by the latest treatments with stem cells and other nanobio-augmentations.

Perhaps the most significant 20th century belief of all in the United States was that a large cohort of future workers

would support a smaller group of future retirees with Social Security taxes. This belief ran flat into demographic realities. When the Social Security system was established, there were about 20 workers paying an annual tax of \$30 to support each retiree. By 2011, when the first baby boomer turned 65, there were about two workers per retiree, paying an annual tax of well over \$15,000. Social security, conceived as a kind of insurance, worked as a kind of pyramid scheme in which those “in early” benefited the most. We do not begrudge this historical fact, in fact we are a little envious.

The system repairs that came as a result of the federal budget surpluses in the early 21st Century helped to sustain

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the programme, but by 2010 a consensus built that these tax-based fixes were not enough to cope with the overwhelming age wave. Now, in 2028, the Social Security system is fully phased out. Taking its place is a guaranteed saving and investment system. It is true that this system is voluntary, with minimal “safety net” backup, so it is a kind of experiment.

This experiment is possible for two key reasons. One is that so many of today’s elders invested in the stock market than in the previous several decades. Today the Dow Jones average is nearing 130,000, as the global economy has more than doubled in the last 25 years. So despite the public perception that the baby-boomer generation were not savers, in fact they have turned out to be the biggest savers in history in this country, and have far less need for a tax-based safety net programme.

The bigger reason however, is that it now seems likely that most 21st Century elders will not retire. We slow down, work less, work at new things, learn, have some leisure, but continue to engage in useful, income producing work in a variety of arrangements and patterns, perhaps for all our lives. It is safe to say that the first quarter of the 21st Century has seen a great re-invention of the third phase of life, away from classic retirement and toward something like “life fulfillment.” The end of retirement and beginning of life fulfillment is proving to be a kind of liberation.

The population bomb ends with a whimper

Ah, but the picture is not all rosy. The entire world population is rapidly growing old, as I have described. Many countries have an average age of 50 or more. The still young countries such as Brazil and India are emerging as economic leaders. The leaders of the aging wave, Japan, Germany, and most of all Russia face the greatest economic and social challenges. Yes, we are working longer and reinventing retirement, but it is still true that a knowledge-based economy benefits greatly from young people and their new ideas. We fear a great shortage of those is in the offing.

The most mysterious and surprising problem we face is the end of the “population bomb”. In 2015 a global conference convened in Geneva and the topic was, “How to sustain a global economy when the world population gets smaller

every year.” Surprised? For the entire 20th Century the fear of over-population increased, reaching a crescendo in the last quarter of the century when news of the population bomb became more than just news. It was a rallying cry for environmentalists and political parties like the Greens. By 2000, as you no doubt know, the world population had reached more than 6 billion. Most projections still anticipated another doubling to 12 billion and no one knew if the carrying capacity of the earth was sufficient. In fact most people assumed it was not.

Little noticed in 1999 was that the top of the curve had already been reached. In the United States fertility or birth rates were below the required replacement rate of 2.1 per woman. Only immigration kept the country growing. All of Western Europe and Japan had fertility rates below replacement, Japan so far below that a Japanese ambassador gave a now famous historical speech noting that by the year 3000, given current trends, there would be only one Japanese left on the planet. So far Japan is right on track, even a bit ahead. By 1999 the best figures were that 61 countries, with almost half the world’s population, were at or below replacement level. Surprisingly few policy makers or planners had noticed.

You might ask, what about those younger countries in 1999 such as Brazil, China and India, haven’t they kept growing at out-of-control rates? No. By 1999 most of these had rapidly falling fertility rates. Bangladesh for example had fallen from an historic figure of 12 births per woman to 4 by 1999. And China of course was busy implementing its one-child policy. Admittedly it was less than 100 percent applied, but it was successful in stopping the population growth there. In fact, when combined with the age wave, this population dynamic has made China one of the most rapidly aging societies in the world now in 2028.

What has been the result of these amazing trends? World population reached a peak at less than 8 billion just two years ago. Now the entire world, not just the most advanced countries, has begun a steady population decline.

Thus, every business today is faced with a problem. How will they sustain economic prosperity when each year they have fewer potential customers? This problem turns out to be especially vexing because it is more counter-intuitive than mere population growth. Back then, the answer was easy. Produce more, re-produce less. (Or, as some argued, consume less, re-produce less.)

Now, however, no one is sure whether the human race should begin to encourage larger families, or whether we should wait until the population reaches a certain lower level. And, if we wait, will a population decline spin out of control? Such declines have few historical precedents, and in past cases came because of plagues, wars and famines. The current decline, which I have told you began in the late 1990’s even as the momentum of total growth continued, comes in the midst of unprecedented prosperity and no one knows how to react. Is the answer as simple as produce less, re-produce more? We doubt it is that simple. Perhaps you can send some ideas forward in time to us.

A few radical thinkers argue that global population decline has arrived just in time, not because the earth could not sustain such a large human family (though it is very strained), but because it is precisely what is supposed to happen. This brings us back to that story about immortality I alluded to earlier.

Immortality from sci-fi to sci-fact

Suppose you could reset the body clock, over and over again. You can. As the 20th Century drew to a close much experimentation was going on in the fields of aging, cell biology, and the many permutations of genetic decoding and genetic engineering. With the successful completion of the Human Genome Project in 2001, and its elaboration in 2009, health problems with genetic causes or factors have begun to be corrected. This will not surprise you, though the speed of successful applications may. The tremendous increase in computing power and speed due to the breakthroughs in quantum computing have been vital to this progress. (Ah, might you be among those who considered this not to be progress at all, but a great leap into the abyss? Remember, a public survey taken in 1999 found that the two 20th Century inventions most regretted by the average citizen were atomic weapons and genetic engineering.)

At the edge of such biological research in the late 1990's was research with the body clock. This research focused on a chromosome cell mechanism called the Telomere, which seemed to regulate how many times a cell could divide and renew itself, and thus how long the cell and ultimately the organism lived. By 1999 there were successful laboratory trials in which several types of human cells, including skin cells, blood vessel cells, retinal cells, immune cells, and others were demonstrating unlimited cell division, or effective immortality, through the use of an enzyme called Telomerase. As the systemic effects of extending cell life were calculated and observed, it became clear that "body clock" treatments were indeed possible.

Human trials of such treatments began in 2012, and became publicly available in 2018. They are expensive and experimental still, since ten years is not really enough to know whether the treatment works "forever." But everyone is intrigued and many are excited by the results. You do not get younger, but aging seems to be effectively arrested, and most researchers believe they have found the key to increasing the average life span to 150. As I mentioned, the most optimistic even suggests immortality, believing absolutely that the first immortals walk among us. If that is true, we are about to start human civilisation all over again. Wish you were here. Do you?

Sincerely,

Glen Hiemstra,
age 78 in 2028



Glen Hiemstra is an internationally respected futurist, and host of www.futurist.com. He lectures and writes from his home office in Kirkland, Washington and he turned 50 in 1999. He can be contacted at: ghiemstra@futurist.com www.futurist.com

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