

The Journey InsideSM: Technology and Society Student Handout: These Are the Good Old Days

These Are the Good Old Days

by Michael S. Malone, courtesy of *One Digital Day* (1998)

If human beings are a reflection of the tools we create, then we are truly the "people of the processor." Disassemble any corner of modern life, pull back the outer layer of boxes and building materials and flashing lights, and like seeds in a pod, out spill microprocessors by the millions. And in the new world of cyberspace (which is essentially a giant global conversation run by microprocessors), they don't even need a box. On the contrary, embodied as software agents scurrying about the global network fulfilling our desires, they will construct virtual bodies of their own.

It is all very thrilling, and very disorienting. Times of great change inevitably lead to nostalgia for simpler, seemingly better times. During these moments, no time seems more idyllic than that of the American frontier.

Back in the 1890s, in a hillside bank on a tributary of the Cimarron River under a stand of cottonwood trees near Marshall, Oklahoma, there was a dugout cave with a worn wooden door. It was in that crude setting that my grandmother spent her infancy. Her parents had just claimed 40 acres of land in the Oklahoma Land Rush, and they were busy—when they weren't fighting winter cold or summer wildfires, they built a house and worked on getting the first crops in. For nearly 50 years, the house they built had no electricity or indoor plumbing and was heated only by a wood stove.

When I think of my grandmother in that dugout cave, my thoughts are not of the romanticized "good old days" but of a world lacking many of the things we take for granted today. Conjure up that world in your mind and imagine what it was like: No pasteurized milk. No vaccines. No new medicines created by computer models and tested by computer-based statistical programs. No air conditioning. No laser surgery or microprocessor-ground eyeglass lenses. No airplanes or ambulances. No patient-monitoring systems or cell phones. No MRIs or CAT scans. No regular access to the world beyond the horizon. No mass spectrometers to test the water. No satellites to predict tornadoes.

It was a world in which the idyllic simplicity we often look back on with nostalgia was, more often than not, filled with tiny coffins and quarantine notices on front doors, injuries that too often turned fatal, frequent deaths in childbirth, and a life expectancy of less than 60 years. Young men and women became old before their time. A quarter of all babies never reached the age of 10. And a centenarian was a rare and celebrated individual, famous for 500 miles around.

It was also a world of terrifying isolation. Of servitude to machines that, because they had no built-in intelligence, were often as deadly as they were useful. Of doctors and teachers who, no matter what their gifts, lacked the tools to truly perform their magic. And a world at the mercy of the vagaries of weather, natural disasters, and disease.

I think now of my grandmother, who, at the age of seventy-five, sat with my grandfather on the mohair sofa in the living room of their house in Enid, Oklahoma, and watched on television as the first human being set foot on the moon. Before she died, my grandmother—who had arrived in Oklahoma in a horse-drawn wagon—had flown in a jet

airplane, made numerous transcontinental telephone calls, owned a color television, and dealt with computers on nearly a daily basis. She perfectly exemplified the generation born at the end of the nineteenth century, who saw more change in their lifetimes than any generation before it in human history.

Recently I had a chance to visit her house, which is now owned by another family, one whose children are blissfully unaware of the way life used to be in this same house, this same town. On a worn side street of Enid, the house was indistinguishable from the millions of other houses that line forgotten streets of the industrial world. Had my grandmother been alive today and wandered into this house, she would have felt a bit disoriented, but still at home.

But had she really explored her old home, she would have become more and more astounded at the appliances and machines empowered by tiny devices installed just under the surface, beneath the superficial trappings of the house she had died in 15 years ago. As I wandered through that house, which held so many of my own memories, I took a quick mental inventory—big-screen TV, stereo, VCR, microwave oven, a new car in the driveway, a video game player in a kid's room—and the thought suddenly struck me: in this prosaic little home there was now more computing power than that employed by all of NASA on the day Neil Armstrong stepped out into the lunar dust.

Looking back now at the transformation of my grandmother's house, I have no doubt that the changes we are experiencing today are as great as those she and her peers witnessed. While her generation is celebrated for the dramatic changes it endured as humankind went—in one generation—from horse-and-buggy to man-on-the-moon, the revolution we are experiencing has been so continuous, so deeply embedded, that we hardly notice it.

Our revolution is different in degree. It is so complete, so all-encompassing, so relentless, that it has utterly changed the way we deal with the world. It has made change so omnipresent that change itself has become the leitmotif of our time. We no longer endure change; we are change. And, without question, in the past quarter-century, the primary agent of that perpetual change has been the microprocessor.

In our hearts many of us secretly sense that we are now living in a golden age. Certainly we still face immense problems, yet the crucial difference between modern life and the world of those early homesteaders is that we no longer suffer from the fatalism and resigned acceptance of the status quo. Rather, we are creatures of hope. Hope that not only will all our children reach adulthood, but that they will live longer than we will. Hope that the plagues that have forever swept across the globe will at last be defeated. Hope that our lives will continue to be richer and more enlightened, and ultimately, more complete.

Much of that optimism rests upon a growing belief that technology will enable us to leap the chasms ahead. Technology itself would seem a fragile vessel upon which to place such high hopes, but it has proven sturdy enough so far. My grandmother, who happily made use of every technological innovation that came her way for nearly 90 years, would have approved. Her descendants certainly do.