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## The Promise of Technology

*Many people imagined that by the year 1984 computers would dominate our lives. Prof. N. W. Thring envisioned a world with household robots, and B. F. Skinner forecast that teaching machines would be commonplace. Arthur L. Samuel, a Dartmouth conference attendee from IBM, suggested that computers would be capable of learning, conversing and translating language; he also predicted that computers would house our libraries and compose most of our music.*

Stephanie Haack, "A Brief History of Artificial Intelligence," in *Digital Deli*, edited by Steve Ditlea (Workman Publishing, New York, 1984)

Some of you might remember *The Jetsons*, a popular TV show during the 1960s, and one that is still available in syndication today. Before *The Jetsons*, there was the movie *Forbidden Planet*, featuring Robbie the Robot. Other entertainment at the time featured all kinds of fancy new technological wonders. We found ourselves growing up with visions of a world made better through technology and a general belief that more technology was a good thing.

*The Jetsons* cartoon featured the twenty-first century family, simple folks who tried to cope with the ultimate, hi-tech wonder world. You remember the cast of characters:

- Rosie, the somewhat out-of-date robot — newer models being available — who always cleaned the house to shining perfection, all while moving around the house with her radio antenna ready to receive a new instruction.
- Jane, the wife, who could instantly prepare dinner — anything from pizza to five-course meals, simply by pressing a button in her ultra-modern space kitchen. She was a master of the technology and lived the ultimate leisurely lifestyle as a result.

**Progress might have been all right once, but it has gone on too long.**

Ogden Nash

- Elroy, the genius kid-nerd who had all the technology figured out. A straight-A student, he specialized in studying space history, astrophysics and star geometry.
- Judy, the daughter, who was stereotyped as the typical teenage girl of the 1960s, unfazed by the modern world in which she lived, instead concentrating her energies on clothes, dating, guys and having fun.
- And finally, the hapless George Jetson, a ne'er-do-well who never seemed to be able to deal with all the modern stuff around him and always made the wrong decisions — a rather old-fashioned fellow in a modern time!

The Jetson family lived in a home perched high in the sky and enjoyed every kind of modern, twenty-first century convenience. Life for them was simple and easy, since so much of the complexity had been removed by the marvels of technology.

Everyone traveled in flying cars some of the time and through special pneumatic tube elevators the rest. People didn't have to walk given the

preponderance of automatic sidewalks. Clothes and dishes were cleaned by marvelous devices that didn't need water. Dogs were walked on special automatic treadmills. You never saw a tree!

Careers and work? They barely existed. George only worked three days a week, for two hours a day, at Spaceley Sprockets.

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Even before the *The Jetsons*, a show that aired long before *Star Trek*, shared with us its view of the future, our generation and those before us lived in a world that was characterized by often glowing, wonderful predictions of the future.

The 1950s were a time of enchantment for many. Once the Second World War ended, life seemed full of promise. The automobile, jet travel and television opened our vistas beyond our own local city and town to the rest of the world. Modern conveniences such as the dishwasher entered our homes, freeing us from some of the drudgery of the day-to-day world. Promises of cheap electricity fueled by the power of the atom filled news reports.

...the fifties, an extraordinary decade. Never before had we delighted in such a rain of innovations with such an immediate and intimate effect on our daily lives. Television took root everywhere. The Polaroid camera, the aqualung, the transistor radio and the birth-control pill came on the market. The hi-fi and stereo industry sprang up. Commercial jet travel became standard. Polio was controlled. The hydrogen bomb, the ICBM, space satellites, and the computer were all significant public issues....In that atmosphere, no technological achievement seemed beyond us and no forecast too fantastic.

"Computers Aren't So Smart After All," *Atlantic*, August, 1974

It was an unparalleled time of promise and excitement, peaking in 1964 with the World's Fair in New York. With its "World of Tomorrow" exhibit, the Fair was used as a forum by industry to summarize their view that the future would be automatic, wonderful and easy, all because of the magic

of all kinds of technology.

The A&T Videophone was on display! Moving sidewalks! Space travel! All kinds of wonderful inventions showing us the way to the future. And at the time, predictions from the corporate world echoed this sense of well-being in the future.

In 1972 Goodyear's Industrial Products Division thought it had identified a growing market for moving sidewalks. Its "Speedwalk" or "Speedramp" system would be used to transport shoppers and strollers around downtown areas, where no cars would be allowed. The firm felt confident that this would be a \$6-billion-a-year industry in the 1980s....Needless to say, moving sidewalks did not turn out to be a growth market at all. In fact, large cities like New York spend huge sums to ensure that heaving sidewalks caused by freezing and thawing will not move unexpectedly and injure their citizens.

Steven P. Schnaars, *Megamistakes — Forecasting and the Myth of Rapid Technological Change* (The Free Press, New York, 1989)

Looking back today, we must wonder whether entire research departments were watching *The Jetsons* for their day-to-day research or moonlighting as writers for the show. For example, scientists at General Electric spoke of the automated kitchen, with the combination of the microwave and freezer providing one-button cooking.

Elsewhere, terms such as "ultrasonic technology" entered the vocabulary, as both *Fortune* and the *Wall Street Journal* predicted in 1964 that we would soon have devices that would provide us with the ability for ultrasonic cleaning of dishes and clothes. *Newsweek* followed up with a prediction that within ten years we would find ourselves taking ultrasonic showers.

The assumption that more technology is automatically good is so ingrained in our thinking that it is hardly questioned.

Seen on the Internet

All of which seemed to parallel devices used in *The Jetsons* in 1962 and 1963.

Predictions weren't restricted to home appliances: by 1972, Goodyear seemed to continue with the trend of taking a page from *The Jetsons*, outlining that a new era of transportation would soon be upon us, based on the massive adoption of its moving sidewalk technology.

As for Rosie the robot, just wait, we were told. The media in the 1960s was full of news stories predicting the imminent arrival of personal robots for the home. The future wasn't just something to be found on cartoon shows!

...in 10 years, personal robots will be able to handle such routine domestic tasks as washing windows, making beds, and vacuuming floors.

Bernie E. Woller, "Energy Usage and Control in the Home of the Future," *Management Quarterly*, Winter, 1985/1986

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The arrival of the computer occurred right in the middle of this early sense of technological excitement. Computers were heralded as a marvelous new invention: an electronic brain. In fact, the first popular book about computers, released in 1949, was entitled *Giant Brains, or Machines That Think*. So at the same time that we had all of these glowing reports about the role of ultrasonic technology and robots and other wonderful stuff, we were introduced to the wonderful promise of the computer, the electronic brain!

Tom Watson Jr, who had committed IBM's future to the computer — the paragon of automation — tried to calm the public fears: "A lot of these people call these machines giant brains and when I hear the term I shudder, because they are giant tools ... not giant brains, and if you have giant tools you're upgrading men not downgrading them."

Jon Palfreman and Doron Swade, *The Dream Machine — Exploring the Computer Age* (BBC Books, London, 1991)

We were led to believe that we were on the threshold of a new era of "thinking machines" that would be able to analyze and comprehend in a

way that would soon exceed our own capabilities. Take a look at some of the early news reports:

- 100 ton brain at M.I.T., *Scholastic*, February 4, 1946
- For sale — electronic brains, *Newsweek*, April 5, 1948
- Want to buy a brain? *Popular Mechanics*, May, 1949
- Machines to do tomorrow’s thinking, *Coronet*, November, 1950
- Robot brain: moron or genius? *Science Digest*, February, 1952
- Whirlwind One: Speediest electro-brain! *Science Digest*, March, 1952
- Magic brain services American airlines, *Flying*, October, 1952
- Will machines replace the human brain? *American Mercury*, January, 1953
- Do electronic brains really think? *Science Digest*, March, 1953
- Machines that think, *Reader’s Digest*, February, 1954

Such reporting didn’t end in the 1950s. Although the term “electronic brains” soon disappeared, stories continued about the ultimate arrival of computers that could think just like us. Even in the 1970s the enthusiasm continued: in June, 1973 the *Wall Street Journal* ran the story “Latest Machines See, Hear, Speak and Sing — and May Outthink Man.”

Computers! They were machines that would be able to function just like us!

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We grew up in a period when the computer establishment seemed to have some compelling need to cast the computer in our own image and desire to develop computers that were “alive.” I’ve always wondered why. For example, when it came to robots, not only were predictions made that they would soon become common, but there were reports that they would

contain an awesome degree of computerized intelligence that would make it difficult to distinguish them from us.

*Newsweek*, for example, in the article “Machines are This Smart,” on October 24, 1960, “tomorrow will bring stranger and smarter robots that take dictation and type letters, draw blueprints, make medical diagnoses, and, as now seems likely, know how to reproduce themselves.”

In the 1950s and 1960s, “a lot of effort was devoted to programs which played chess and checkers, found proofs for theorems in geometry and symbolic logic, composed music and poetry, simulated neuroses. There was even a psychiatry program....”

“Computers Aren’t So Smart After All,” *Atlantic*, August, 1994

Such fancy was based on the explosion of research in the 1950s and 1960s into what quickly came to be called “artificial intelligence.” Massive expenditures were invested, particularly by the U.S. military establishment, to develop these so-called thinking machines. Much of the effort at academic institutions at the time was being poured into so-called cognitive capabilities, with computers that could reason and understand logic just like us. That’s why we saw so many computers that could play chess and checkers, prove a theorem or undertake a psychiatric analysis.

It seems that the phrase “water goat” kept cropping up in the translation of a Russian engineering paper until it was discovered that the words were the translation of the phrase “hydraulic ram.”

“Machines are This Smart,” *Newsweek*, October 24, 1960

Similarly, efforts were made to develop the capability by which computers could converse through the keyboard and by voice. One hot topic was translation software; with the heat of the Cold War, there was an identified need for a computer that could do Russian translation. Experts foresaw pocket-size devices that would instantly translate any language on the planet, just by listening in on a conversation. Early efforts were less than

fruitful, with some rather abysmal results.

Machines would be able to learn all about you, by watching what you did, and would modify their activities accordingly. Machines — technology — would be made intelligent through the power of the computer.

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There was a certain promise implicit in this technological fascination: intelligent machines would free us from the drudgery of work. We were destined to become the leisure society.

From the earliest arrival of computers on the scene, news coverage often took the angle that we would soon see the ultimate in job nirvana: the reduced work week. It was perceived that computers would be able to take on much of the effort that people put into the mundane things in life, whether that be with their job or with their personal lives. Newsweek noted in the article “Why Work?” on February 12, 1962, “What will they do all their long lives, day after day, four-day weekend after four-day weekend, vacation after vacation...?” The perception was that computers would simplify the world of business so much that we would suddenly find ourselves with too much leisure time on our hands.

Computers....would produce enormous amounts of enforced leisure time. In a BBC documentary in 1966, a spokesman for General Motors predicted: “by the year 1990 or so we will first of all delay the entry of the working force into the labour market, (and) people will start to go to work at about the age 25 ... We also think the retirement age will be coming down and that probably on average, retirement will occur at about age 50. And in the 25 years that will constitute the working part of a man’s life, he will work about half what he works today, that is, he will have six months’ vacation a year, or if he works an entire year at a 40-hours week, he will take next year off as a sabbatical year. I don’t believe this is a pipe dream at all. I think this is merely a continuation of the trends that we’ve already seen in the last 50 years, and the impact the computer will have in mechanizing the white collar part of our economy.”

Jon Palfreman and Doron Swade, *The Dream Machine — Exploring the Computer Age* (BBC Books, London, 1991)



We would work for as little as one to two hours each day, or only two or three days a week. Leisure industries would boom, as we found ourselves freed from the shackles of work, ready to enjoy the fruit, the free time, provided by the computer revolution. Just like George Jetson, I suppose.

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In retrospect, it all seems rather silly. In “Computers Aren’t So Smart After All,” an article which appeared in *Atlantic*, August, 1974, some questions were raised about the early excitement over the potential for computers. “Every culture has its juvenile embarrassments; misdirected enthusiasms which fail dramatically and in retrospect seem to say something humiliating about the civilization that pursued them. The great computer craze of the fifties and sixties is such a case.” Clearly, the holy grail of computers — the robot, speech and artificial intelligence — has not been achieved. And most of us continue on with the five-day work week.

It took some time for the enthusiasm to disappear; you could even find reference to the topics in the 1970s. The respected publication *ComputerWorld*, long measuring the pulse of the computer industry, carried just such an article in its May 17, 1982 edition, titled “Human Race Predicted to Die in Favor of ‘Living’ Robots/Marry a Robot? Futurist Says Yes by Year 2000” “According to Arthur Harkins, director of the graduate program in futures research at the University of Minnesota, nonbiological entities created by humans will gradually replace humans. The key to this is the biochip, which is a semiliving, molecule-size neutron-equivalent circuit. Humans will be modified through a combination of genetic engineering and implants of artificial intelligence ... and artificial organs....Humans with special needs, such as burn victims, will “marry” robots by 2000, although such unions will not be legal marriages.”

But eventually, sanity prevailed, with a gradual recognition by both the industry and society that perhaps the idea of “electronic brains” was too fanciful and too far-fetched.

Over time, glowing forecasts of a better future due to technology

began to fade, as many of the predicted forecasts failed to come true. And our attitudes towards computer technology, and perhaps technology in general, suffer from the fact that maybe we have seen too many outlandish predictions that have not come true, particularly, computers that think, walk and talk. After all, growing up we were constantly exposed to a world that featured predictions about the marvelous impact of new technology, which, when they failed to deliver, engendered in us a skepticism that lingers to this day.

Forecasting the future — particularly with technology — is obviously a difficult thing to do. Many people have said that while it's easy to make a prediction about the future, it's another thing altogether to be right.

Consider, for example, one fellow who in 1868 tried to alert residents of London, England, that they would soon face a very serious problem. Why? In his studies, he had taken a look at the population growth rate of the city and then factored in the bathroom habits of the horses then used for travel. His conclusion? By 1968, most of London would be buried six feet deep in horse manure.

Why is it so difficult to predict the future? Can we determine how the wired world — the information age — is really going to evolve, given our past history of failed technological forecasts? It's a good question to consider.

It has been said that when it comes to computer technology, there are as many predictions for the future as there are computers. And some have observed that those who make the predictions do one of two things:

- they predict more of the same, or
- they make extremely outlandish predictions, so outlandish, in fact, that no one will remember what was said.

Forecasters, it seems, are prone to see big changes when none are in store, and rapid changes when slower changes are more likely.

These observations point up a common difference between

successful and failed forecasts. The successes tend to be conservative in their outlook, while the failures foresee fantastic changes. The successes call for smaller, slower changes and reject radical innovations.

Clearly, successful forecasts show a better sense of perspective. But, as (Nigel) Calder notes insightfully in his 1984 follow-up, “common sense is often smothered by special enthusiasm, selective inattention, political prejudice, wishful thinking, or doomsaying.”

Steven P. Schnaars, *Megamistakes – Forecasting and the Myth of Rapid Technological Change* (The Free Press, New York, 1989), page 51

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The problem of properly forecasting the development and role of computer technology has long existed.

Early on, the problem was that people simply couldn't conceive what the machines might be used for. When the computer first arrived on the scene, the scientists involved in their development couldn't perceive that one day we would use them to play games, manage our home finances or converse with people on the other side of the world.

All of their energies centred around the belief that what they were developing was a giant calculator, designed specifically for the goal of assisting with the complex mathematical problems of the day involved in the fields of engineering and physics, such as atomic weapons.

If this new invention was merely an exceptionally fast arithmetic machine, it followed that the world would only ever need a few of them. After all, one machine could do the work of 10,000 human computers with calculators. In the post-war electronic era there were suggestions that Britain would need just three or four computers and the United States six at most.

Jon Palfreman and Doron Swade, *The Dream Machine – Exploring the Computer Age* (BBC Books, London, 1991)

If that was to be their role, they thought, then clearly there wouldn't be a lot of people who might need the sophisticated capabilities they provided.

Perhaps a few research centres, here and there, around the world, that would be it!

Such attitudes might seem laughable today, but even those who were destined to play a major role in the future computer industry could not foresee the significance of what they developed. Thomas Watson, Sr., the head of IBM at the time, indicated in the early 1950s that he thought there might be a global market for perhaps six computers. Today, with over 150 million personal computers in the world, these predictions seem a tad off base.

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The problem of technological forecasting doesn't exist solely with computer technology. And often people have been correct in their forecasts, but have been attacked nonetheless.

Robert Goddard, for example, now acknowledged as the father of the rocket engine, was ridiculed by none other than the *New York Times*, which, in a savage editorial, dismissed his invention as mere fancy and indicated that mankind would never master the heavens.

**The best way to predict the future is to invent it.**

Alan Kay

Such skepticism is abundant regardless of the invention. At a meeting of the Western Telegraph Company in 1906, one stockholder stated that the new “wireless telegraph” (radio) would not be a threat to the company. Western Union, of course, soon found that radio transmission did some fairly significant damage to its core business.

Professor Richard Woolley, Astronomer Royal, stoutly declared in 1957 that “the future of interplanetary travel is utter bilge.” He was in good company. As early as 1920 the *New York Times* had pointed out that rocket pioneer Robert Goddard “only seems to lack the knowledge ladled out daily in high schools,” because he believed that a spacecraft would operate in a vacuum. As for flying to the moon, “the proposition appears to be basically impossible,” observed Professor A.W. Bickerton in

1926. In 1936, J.P. Lockhart-Mummery clinched the argument: "The acceleration...from rockets...inevitably would damage the brain beyond repair."

Cliff McGoon, "Predictions from a decade ago – Revisited, *Communication World*, January/February, 1994

Consider the advisor who told President Harry Truman in 1943 that the atomic bomb would never work, and that the entire project was foolhardy. Or the Engineer-in-Chief of the British Post Office, who in 1878 dismissed the idea of electric light, a proposition that looks particularly ludicrous today.

In 1902, *Harpers Weekly* dismissed the idea of dedicated roads for motor cars, which might have made sense at the time, since autos were only beginning to be used in their most experimental stages. Today, of course, such a prediction looks absolutely silly.

Often, the problem isn't that others dismiss the invention; sometimes even the inventor cannot possibly comprehend what the invention is good for. Just take a look at Thomas Edison. When he invented the phonograph, he couldn't pinpoint the key use for it, instead believing that it would be used for many other things. Clearly, technological forecasting is a significant challenge.

Another interesting characteristic of technology evolution is that the immediate use, and even the potential long-term use, of a new invention is difficult to determine. And the inventor himself is often the worst spokesperson for its potential uses. Thomas Edison, for example, published an article in 1878 describing [several] ways that the phonograph might prove useful to the public:

Taking dictation without the aid of a stenographer

Providing "talking books" for the blind

Teaching public speaking

Reproducing music

Preserving important family sayings, reminiscences and the last words of the dying

Creating new sounds of music boxes and musical toys

Preserving the exact pronunciation of foreign languages

Teaching spelling and other rote material

**Recording telephone calls**

Notice that “taking dictation” was first on the list, but musical reproduction was only fourth; many of the other suggested applications look ludicrous to us a century later.

Edward Yourdon, *Decline and Fall of the American Programmer* (Prentice Hall, Englewood Cliffs, New Jersey, 1992)

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Why does the future not turn out like predicted, particularly when it comes to computer technology? To find out the answer, I turned to the book *Megamistakes — Forecasting and the Myth of Rapid Technological Change*. (The Free Press, New York, 1989) It is a book that takes an in-depth look at predictions that have been made through time about technology and examines why the predictions are so far off the mark.

The main conclusion? All too often, those responsible for making the prediction are so directly involved with the technology that they cannot think straight! Put it another way, they are far too in “love” with the technology to be rational! Notes the author, Steven P. Schnaars, “the forecasters who construct them are blinded by their emotions and lose perspective of commonsense economic consideration. They are swept away. They incorrectly assume that consumers will find the new technology as enticing and irresistible as they do. In most instances, those assumptions are very wrong.”

Isn't it interesting that the same people who laugh at science fiction listen to weather forecasts and economists.

When it comes to computers, the problem is rampant. One need only look to the predicted “paperless office” and the oft-made statements by the computer industry that we are finally on the verge of seeing a reduction in the use of paper. It's certainly not an old belief; as far back as October, 1955 there was an article in *Fortune* headlined “Coming Victory over paper.”

I don't know about you, but I certainly find that when I visit an office,

Kelvin Throop, III

there seems to be a heck of a lot of paper about. Yet another computer promise bites the dust!

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Not only have we grown up with a skepticism about technology and computers due to failed forecasts, but we have developed a sense of suspicion and fear about its impact.

It's clear that we had a sense of wonder in the 1950s and 1960s when it came to technology, but soon we began to encounter the darker side of what technology could do when we were introduced to HAL, the computer in the movie *2001: A Space Odyssey*. Here at last, in the midst of the uproar and confusion that surrounded us in the 1960s, we had the perfect understanding of what a computer could be. It would be a faithful tool, with a level of intelligence on par with humans, if not exceeding them. It could speak, think and play a mean game of chess. The voice of HAL was soothing, relaxing and about as conversant as any other person.

The "computer as a life form" image was complete! HAL didn't seem like a machine; rather, "he" was a partner on the voyage, strong, knowing and ever-present. So while watching the movie, we were at first reassured and fascinated. The future role of the computer in our lives could be quite positive, after all! Or so we thought.

As *2001: A Space Odyssey* progressed, we became aware of an evil side to HAL; at the same time that "he" was smart, he was evil, to the extent that he was capable of committing the ultimate act of murder. We were stunned! Computers might not be simple electronic brains, about to deliver us into a world of the shortened work week! Instead, they could be evil, nasty devices, technology gone amuck!

The sixties was a decade in which apprehensions about the effects of technology became widespread, and glittering inventions ceased to enhance our daily lives.

"Computers Aren't So Smart After All," *Atlantic*, August, 1974

Looking back, we can see that the duplicity of HAL heralded a new era, one that involved a changing attitude towards technology. It wasn't just HAL but many other things, perhaps most importantly, what we witnessed with the horror of technology gone mad in the Vietnam war. We became skeptical of the wonders of technology in general.

Ralph Nader entered our consciousness, with his indications that something was wrong with the technology of the world. And over time, the future held for us not the exciting glow of wonderful technology but of nuclear plant meltdowns at Chernobyl and Three Mile Island. We saw the *Apollo 1* mission burn on the pad with the loss of three lives and sat in terrorized silence when *Challenger* exploded in the sky.

We became skeptical of the benefits of all of this new technology and began to challenge the views of the scientists who pronounced it to be good.

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There is a lesson to be learned from all of this: our attitude towards technology will always be one of enthusiasm balanced by skepticism. Of course, we can look at predictions from the past and snicker. How foolish they were! How incorrect were their predictions! How silly their anticipated future!

Even today, as predictions continue to be made about the fabulous role of computer technology, such as virtual reality, the "information superhighway" and other topics, we aren't quite sure if we should believe all of them. Our ingrained skepticism, our built-in disbelief of the benefit and role of technology, blinds us to the potential impact of such new technological developments.

We are held hostage by our exposure to the future of yesterday and the reality of too many promises of the past that remain unfulfilled. How can we believe what is promised today?



Given the shaky state of accuracy found with predictions of the future and our deep-seated negative attitude towards technology, it's important that you learn how to manage your own attitudes when you hear about the impact of some hot new computer technology.

Of all the technologies we have invented, the computer has been the most difficult to interpret and predict. Forty years ago scientists sincerely believed that the world would need only a handful of computers. Will the uses to which we are putting computers seem similarly naïve 40 years from now?

Jon Palfreman and Doron Swade, *The Dream Machine – Exploring the Computer Age* (BBC Books, London, 1991)

Let's face it. One challenge that you have likely had in your struggle with technology is that you don't feel "with it." You often feel left behind and that so many other people are marching further ahead than you in their capabilities. But much of this might be due to the fact that they are all too willing to accept the amazing and awesome predictions that surround them. My attitude?

1. The willingness to believe the future, combined with a healthy skepticism about what you hear, is the best approach to staying "with it."
2. Recognize that for a long time we have been dealing with developers in the computer industry who all too often get carried away with their beliefs of how significant and wonderful their new invention is. Their beliefs often do not turn out to be correct; something else does!
3. Learn to carefully analyze the excessive and amazing levels of hype that surround some new development with computers, before you conclude that you are falling behind!
4. Do not be suspicious of everything as a result of our being misguided. Because we were continually encouraged to believe that computers would instantly lead to positive and dramatic change in our life, our suspicions grew when they did not.

5. Feel safe to ignore the “holy triad” of the computer revolution: artificial intelligence, computers that talk and robots! Someday technology will be able to do these things, but probably not in our lifetime. Computers never evolve according to the dreams of those who develop them.
6. Keep your mind open to all the new developments; otherwise, you will fall into complacency and continue to think that tomorrow will be much like it is today.

Arthur C. Clarke, the author of *2001: A Space Odyssey* and many other science fiction books, perhaps said it best: “all attempts to predict the future in any detail appear ludicrous within a few years.” It’s good to keep an open mind.