THE YEAR 2000 PROBLEM THE FIRST BIOPOLITICAL CRISIS OF A NEW ERA

John L. Petersen
President, The Arlington Institute
USA

We have all had the experience. It is pretty outside . . . or a great song comes on the radio. Your mind wanders and you are on autopilot. Suddenly the guy in front of you swerves — or slows down suddenly. If you are lucky, you are just scared to death — and quickly shocked back to watching the road ahead. If you are not, it is painful.

Life is a lot like driving a car. If you do not anticipate what might happen in the near future, you might suddenly find yourself in great pain, not having had enough time to respond to a surprising event.

The principle scales. It works for societies, and in fact, the whole planet. There are moments when we desperately need to anticipate and be proactive . . . fleeting windows that if missed, set us up for disaster. These unique times often present extraordinary opportunities as well as hazards, for they are transitions — periods of acute change. They are inflection points, where history changes direction — quickly. And every business leader knows that both the richest and most dire futures reside together in times of rapid change. The difference is just in how you look at them . . . and what you see.

The fall of the Soviet Union was clearly such a point. Jarring change. New institutions. Different expectations. New relationships. Different possibilities . . . Quickly. Obviously fraught with extraordinary opportunity and hazard. That transition is still underway, and the endpoint is not yet clear. The transition from apartheid to democracy in South Africa is another rather current example.

There is another such situation on the horizon now, and it is a big, big deal. In the next 14 months we will either rise to the occasion, or there will be a whole lot of pain because we did not. It is called the Year 2000 Problem, and it is now more than a problem, it is clearly becoming a crisis. Y2K — "K" stands for 1000 in technical jargon — is a global issue with the potential of long-term implications for the whole planet. It is therefore strategic. A strategic inflection point.

The problem stems from programmers and chip designers for years having used two digits for the date fields — 56 to represent 1956, for example — in both computer programmes and semiconductor chips. In those earlier days memory was dear and expensive so space was at a premium. The process worked well until computers and chips encountered the year 2000. They look at "00" and presume in their computations that this means 1900, not 2000. The difference is 100 years, and very erroneous computations that often cause computer systems to fail. There are many billions of lines of computer code that must be examined for changes, and as many as a billion embedded microchips that may not work after January 1, 2000. The chips, which now appear to be the most serious problem, are everywhere. In satellites, railroad track switching systems, electrical power plants, medical equipment, elevators, automobiles, traffic light systems, industrial control systems . . . everywhere.

There is no question about how to solve the technical problem. What is becoming painfully obvious though, is that there is not enough time to change all of the lines of code and replace the defective chips. We will come to the end of the millennium and many computer-controlled systems will fail. It may be bad. The lights might go out for a lengthy period of time. There might be food and water shortages. There will be many companies that fail. Wall Street economist Edward Yardeni,[1] now predicts a 70% likelihood of a deep recession, and the growing possibility of a global depression.

The good news and the bad news is that the United States is doing better at dealing with Y2K than any other country. Europe is consumed with the conversion to the new Euro currency which must be completed by the first of next year, and Asia is desperately trying to extricate themselves from the domino-like financial shocks that have ravaged most economies there. Y2K is on the back burner . . . if it is on any burner at all. The scale of the problem is not apparent to many foreign institutions. Citibank, for example, is spending $650 billion to solve Y2K problems in their systems, but all of the 49 largest banks in Japan are budgeting less than that total amount. The problem is so acute that a recent CIA analysis suggested the possibility that 60 countries could economically fail because of Y2K.

Something of this magnitude could happen because we all are dependent upon other organisations and services that we do not control which have computer systems that may not work. The links are often not apparent. An electrical power plant could spend many millions of dollars assuring that all of their control systems were Y2K compliant, only to find that the regular coal train does not show up because railroads could not switch their tracks manually. Since many power plants only have days of coal supply it could mean they would have to shut down — even though they themselves were compliant.

We are surrounded by these kinds of interdependencies, many of which link to other countries. We do not begin to understand the systems — the network/nature — of how we live. We live in a huge system that is best defined in biological terms — a biopolitical system — and unless we respond to Y2K in new biocentric ways, Y2K is certain to be very painful.

Unlike any other crisis, like a natural disaster, for example, we know this problem is going to happen. It is an absolute deadline that is not negotiable. This presents both a problem and an opportunity.[2] This is not an earthquake, which suddenly does great damage without warning. In the case of Y2K we have more than a year to make people aware of the problem and put in place contingency plans to deal with possible failure. Furthermore, since we know parts of our social system may fail and will need to be rebuilt, we have the unusual opportunity of having the time to consider that design now, not later in the aftermath of the disaster.

Although it looks serious, it is clear that by working together in families, churches, clubs, and neighbourhoods, it is possible to develop self-help plans that can deal with the loss of some of the services that we take for granted. The example of the church in the American state of Michigan which is building a food bank to be able to feed their whole town for three months is a great example.

But Y2K is more than just a unique looming emergency. It represents the beginning of a new era in human history – an archetype or prototype of a series of potential events that are idling on the horizon, the nature of which the world has never seen before. At the same time, each of these are global in scale, potentially disastrous, and intrinsically out of control.

Global in scale

Y2K is a global crisis. Only in this century, starting perhaps with the world wars and moving to environmental problems, has humanity had to consider issues that involved the whole planet. One could argue that in this regard even the world wars do not count, as there were many places on earth that were not involved in those events. This is a new kind of phenomenon. Everyone is a part of this.

Potentially disastrous

Obviously, Y2K is potentially disastrous. But it is disastrous on a scale perhaps unseen before. If there was long term failure of electrical and other utility systems, the very fabric of society could be torn.

Intrinsically out of control

There are no "government solutions" here. Big business or the UN will not provide the canned solution for Y2K. This is not a top-down problem that responds to "management" and "policies" from above. There is an important role for leadership, but this is a condition of a different colour. We are dealing here with a very large, complex adaptive system. System dynamics and the science of complexity tell us that only when the smallest pieces of the system operate interdependently will it reconfigure itself to most effectively deal with the problems of Y2K. Pumping huge amounts of information at all levels into the network so that everyone understands the problem and sees ways to deal with allows people to work with their neighbours and friends to allow this huge organism to reconfigure itself to most effectively work around a damaged infrastructure.

These characteristics not only describe Y2K but also potential crises like rapid climate change, an energy revolution, an asteroid striking the earth, a global epidemic, and even something as far out as the discovery of human-like life somewhere else in the universe. In every case these and other such events are global, potentially disastrous, and intrinsically out of control . . . and if they happen they are likely to follow chronologically from Y2K.[3] What we learn from Y2K would stand us as a species well in being able to effectively deal with whatever came downstream. It could be crucial, for if we do not learn from Y2K, the blow of the next event could be much worse than otherwise.

So Y2K is a test . . . that we must pass. If we learn from it – if we develop biocentric approaches – it prepares us for the future. If we do not, the next event could be much more threatening and painful for us all. It is time for us all to sign up for school.

References

1. See *Year 2000 Recession?,* at http://www.yardeni.com/y2kbook.html, by Dr. Edward Yardeni, Chief Economist, Deutsche Bank Securities
2. For a complete review of the issue, see *The Year 2000: Social Chaos or Social Transformation?* by John L. Petersen, Margaret Wheatley, Myron Kellner-Rogers at http://www.angelfire.com/ca/rhomer/social.html
3. For an expanded list of possible wild card surprises, see *Out of the Blue: Wild Cards and Other Big Future Surprises* by the author.

John Petersen is a futurist and strategic planner whose involvements include long-range strategic and product planning, strategy development for the Year 2000 Problem, leadership

of national non-profit organisations, sales, manufacturing, real estate development, and marketing and advertising, mostly for companies he started himself. He is the President of the Washington DC-based think tank, The Arlington Institute, that works primarily with uniformed and civilian leaders to develop new, positive images of future military roles and missions. A graduate in electrical engineering, John Petersen has also promoted rock concerts, produced conventions, and even worked as a disk jockey among other things. His government and political experience includes positions at the National War College, the Institute for National Security Studies, the Office of the Secretary of Defence, and the National Security Council staff at the White House. He was a Naval flight officer in the US Navy and Navy Reserve, and is a decorated veteran of both the Vietnam and Persian Gulf wars. He has served in senior positions for a number of presidential political campaigns, and was an elected delegate to the Democratic National Convention in 1984. He is a network member of the Global Business Network, and the Vice-Chairman of the Board of Directors of the US Navy Memorial Foundation. Mr. Petersen has written extensively on foresight, long-range strategic planning, and on a variety of other subjects. His first book, *The Road to 2015: Profiles of the Future*, was awarded Outstanding Academic Book of 1995 by CHOICE Academic Review, and still remains on The World Future Society's best-seller list. His latest book, *Out of the Blue: Wild Cards and Other Big Future Surprises,* is also a WFS best-seller.