Y2K as a Futurist's Dream

Jim Dator

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Y2K is a futurist's dream come true.

If it did not exist, a futurist should have invented it.

At least two futurists are devoting a lot of attention to the
phenomenon:
      Stuart Umpleby of GWU
          Y2K Diary diary@gwis2.circ.gwu.edu
      And John Pedersen of the Arlington Institute
          http://www.arlingtoninstitute.org/home.htm

Most other futurists have been tracking in one way or the other.

Our futures center at the UH ran a very well-attended Y2K workshop
about a year and a half ago, and may do a postmortem in February
to see what has happened. I have an electronic file fully of Y2K
information and websites which I reviewed for the discussion here.

Why is Y2K so important to futurists? Not only will we suffer, like
everyone else, if the worst, or fairly bad, or simply mildly annoying
things happen, but more importantly, Y2K gives us something we
have never had before: evidence of how humans react to
information about future events which will happen in a very
concrete way on and following a very clearly defined point in time.

We never have that. All of our forecasts (not predictions) are more
or less vague. Consider "Overpopulation," or "Global Warming." Or
"A Meteor Attack." Or even World War III during the Cold War,
which, though looming and widely expected for three decades,
never happened.

A great many people even find comfort in whatever uncertainly surrounds smoking cigarettes and dying from cancer.

Unlike all of these examples, and many more, December 31, 1999 and January 1 2000 WILL happen. And Y2K will either be a huge catastrophic event and aftermath, a series of annoying events, or a total nonevent.

And we see that different people respond differently to what they think Y2K will be.

If we had time, I would love to have each person here anonymously write down what you have already done to prepare for Y2K, what you are seriously intending to do (and actually will do), and why you are either doing, or not doing, something in preparation.

Human beings basically only learn from direct, personal, and preferably repeated, or alternatively, catastrophic experience. We don't learn much by being told. Witnessing something happens to others is in between direct experience and being told--especially if it comes from a well-produced movie with certain highly memorable scenes in it.

It is very difficult to get people to prepare for things they have never experienced. Harder yet to prepare for things that NO one has ever experienced.

But it does happen sometimes, as we know from various reports of people who, becoming convinced the world is coming to an end, sell all their goods and go up on a mountain to await the end, which does not come.

As Leon Festinger told us long ago in his famous book titled, *When Prophecy Fails*, what usually happens when prophecy fails is that the prophet admits an error in calculation, and prophesizes doom again, but this time far enough in the future to avoid humiliation again. Almost all of the original followers continue to follow, until they eventually lose interest, and new followers come along, some times by this process creating very long-lived communities waiting in expectation of something that never ever happens, as for

example, the Second Coming and the Christian Church in all its many denominations.

But most of us only learn from direct experience, and not from being told.

So it helps to find useful analogies. Some future event is said to be like something people have experienced.

Here are some of the analogies I have heard used for Y2K, in terms of how we should prepare for it, or expect it to hit us:
> Like an Earthquake
> Like a Hurricane
> Like a Tsunami (first wave may not be bad, so you step out on the beach to pick up fish and you get creamed by the second-- similar to the eye of the storm for a hurricane)
> Like War and events leading to a war
> Like the Big Depression
> Like a Waterfall (we are in the river rapidly approaching the waterfall, but it is placid now and we won't know the true magnitude until too late).
> "We have created a monster and the monster is about to get sick".
> There will be a FESTIVAL OF BLAME after it his.

And so on.

But some people are suggesting that, and I am coming to believe that Y2K is not an analogy to something past, but a metaphor for things to come:

> Conclusions of the US Naval War College Year 2000
> International Security Dimension Project Report

> Conclusion #1
> How You Describe Y2K Depends on From When You View It

> People who describe Y2K as "different in kind" from anything humanity has ever experienced, or something that is unique, tend to look at the event from the perspective of the past

century. But those who look at Y2K from the perspective of the coming century, exhibit the exact opposite tendencies: they tend to describe Y2K as only "different in degree" from the sort of system perturbations humanity will increasingly face as we become more interconnected and interdependent on a global scale. In their minds, then, Y2K is a genuine harbinger of next definitions of international instabilities or uncertainty, in effect a new type of crisis that leaves us particularly uncomfortable with its lack of a clearly identifiable "enemy" or "threat" with associated motivations.

Our bottom line (paraphrasing Rick in Casablanca): We'll always have Y2K

Conclusion #2
Y2K Moves Us From Haves-vs-Have Nots to Competents-vs-Incompetents

Success at dealing with Y2K has a lot to do with resources, and anyone who believes otherwise is painfully naive. And yet, defeating the challenge of Y2K says as much or more about one's competency than it does about one's wealth. The rich can survive Y2K just fine, but only the truly clever can thrive in Y2K, which IT competents tend to view as a sped-up market experience within the larger operational paradigm of the New Economy.

The rise of "virtual tigers" such as India's software industry, Ireland's high-tech manufacturing, or Israel's Wadi Valley, tell us that it doesn't necessarily take a wealthy country to succeed in the New Economy, just a very competent one. Y2K may well serve as a microcosmic experience that drives this new reality home to many more around the planet: it's less about what you have than what you can do.

For in the end, Y2K is less about vulnerability and dependency, then dealing with vulnerability and dependency. You can buy your way toward invulnerability and independency, but you can also work around vulnerabilities and dependency.

Our bottom line: Competents will thrive, while incompetents nosedive.

Conclusion #3
Y2K As A Glimpse Into the 21st Century:

Divisions Become Less Vertical and More Horizontal

The 20th Century featured an unprecedented amount of human suffering and death stemming from wars, and these conflicts came to embody humanity's definition of strife -- namely, state-on-state warfare. The divisions that drove these conflicts can be described as "vertical," meaning peoples were separated--from top to bottom--by political and geographic boundaries, known
as state borders.

If the 20th Century was the century of inter-state war, then the 21st is going to be the century of intra-state or civil strife. Divisions of note will exist on a "horizontal" plane, or between layers of people that coexist
within a single state's population. These layers will be largely defined by wealth, as they have been throughout recorded history. But increasingly, that wealth will depend on competency rather than possession of resources.

Y2K will help crystallize this coming reality by demonstrating, in one simultaneous global experience, who is good at dealing with the NewEconomy,
globalization, the Information Revolution, etc., and who is not. And these divisions will form more within countries than between them, as borders will become increasingly less relevant markers of where success begins and failure ends.

The coming century of conflict will revolve around these horizontal divisions.

Our bottom line: We have met the enemy, and they is us.

Conclusion #4
Y2K Will Demonstrate the Price of Secrecy and the Promise of
Transparency

Those who are more open and transparent and share
information more freely will do better with Y2K than those
who hoard information, throw up firewalls, and refuse outside
help. Secrecy will backfire in almost all instances, leading to
misperceptions and harmful, stupidly self-fulfilling actions.
Governments must be as open with their populations as
possible, or
suffer serious political backlashes if and when Y2K proves
more significant for their countries than they had previously
let on. People's fears about "invisible technology" will either
be conquered or fed by how Y2K unfolds.

This is a pivotal moment in human history: the first time
Information Technology has threatened to bite back in a
systematic way. In a very Nietzschean manner, Y2K will either
"kill" us or make us stronger, and the balance of secrecy
versus transparency will decide much, if not all, of that
outcome.

Our bottom line: The future is transparency--get used to it!

Conclusion #5
Our Final Take on Y2K:
As It Becomes Less Frightening, It Becomes More Profound

The more you accept the notion that Y2K represents the future
and not some accident of the past . . . the more you see it as
different in degree than in kind from the challenges we will
increasingly face . . .and the more you realize that it's part and
parcel of the globalized, IT-driven New Economy than some
exogenous one-time disaster, then the more profoundly will
Y2K loom in your psyche even as it becomes less frightening
with regard to the 010100-threshold.

Why? Because the more it becomes associated with the broader
reality of our increasingly interconnected and interdependent

world, the more inescapable it becomes. In short, you can sit out the Millennium Date Change Event and all the hoopla surrounding it, but there's no avoiding Y2K in the big-picture sense, because the skills it demands from humanity are those same skills needed for our not-so-collective advance into the brave new world of the 21st Century.

Our bottom line: There's no escaping Y2K.
http://www.geocities.com/ReseachTriangle/Thinktank/6926/y 2krep.html

Let me comment on some of the lessons already learned from a futurist's point of view.

Many reactions:

Personal greed (making money from it now or later, legally and illegally)

WASHINGTON - The top Y2K research firm predicts that the largest single heist in history, an electronic theft exceeding $1 billion, will occur as a direct result of the Year 2000 computer glitch. The biggest concern, the Gartner Group says, is that employees hired to upgrade systems might have left "trap doors" or other means through which they can clandestinely take control of systems, including those that electronically move $11 trillion a year among financial institutions, corporations, governments and private organizations. Several security firms say they have already found "trap doors" in Y2K programming. "Fixing Y2K has opened up vulnerable business computer programs to attacks by a larger number of people," says Donn Parker, author of Fighting Computer Crime.
http://www.usatoday.com/news/ndsthu09.htm

JAPAN ADVISES PUBLIC TO BUY Y2K SUPPLIES
The Japanese government is now encouraging its citizens to buy two- to three-day supplies of water, food, gasoline, and other goods to prepare for Y2K. The Web site for the Prime Minister's Office has a page suggesting that the public stockpile certain items, although the site also says authorities expect no major disruptions to

everyday life. In addition, the government ran ads on Saturday in 75 newspapers with the same suggestions. Only a few days before the warnings, the government announced that over 90 percent of companies in the finance, power utilities, telecommunications, and airline industries were ready for Y2K. However, the recent advisories suggest concern over how prepared Japan is for the date change. (Wall Street Journal 11/01/99)

ECONOMIC IMPACT OF Y2K HOARDING

The country's gross domestic product (GDP) rose by an annual rate of 4.8% last quarter, largely because of corporate inventory buildups to avert shortages that might arise due to the Y2K problem, but the GDP is likely to fall precipitously in early 2000, when excess inventories make it unnecessary for companies to order new supplies. (USA Today 1 Nov 99)

Community support (using it as a chance to prepare to help each other in other ways)

Iowa State University, the University of Iowa, and the University of Northern Iowa are preparing to offer refuge to thousands of people if Y2K-related utility failures occur on Jan. 1 leaving homes without heat. The three universities have their own power and water supplies, and residence halls will be mostly empty with students away for winter break. The University of Iowa is preparing its largest residence hall, a recreation center, and student union to shelter thousands in the event of power failures. The university has its own hospital, and therefore is equipped with backup power supplies and generators. Meanwhile, the University of Northern Iowa is preparing its residence halls, gymnasium, and football dome. In preparing for Y2K, universities in the Midwest have the benefit of an extra hour over schools on the East Coast because of the time difference, and will be watching to get an idea of what to expect. Northern Iowa Y2K coordinator and associate vice president for information technology Gary Bozylinsky says, "We work closely with the Red Cross...all we have to provide is space." (Chronicle of Higher Education 11/05/99)

TEAM OF STATE SENTRIES WILL FOLLOW THE SUN TO MONITOR Y2K BLIPS

The state of California will dispatch 20 people on New Year's Eve to monitor Y2K-related issues all over the world and report back to California, which will be one of last places on earth to make the change to the new century. Auckland, New Zealand, for example, will reach the 21st century 21 hours before California. The spotter in Auckland will report what he or she observes, good and bad, back to California as Aucklanders move into the New Year. If Auckland has a problem with its traffic lights, for example, California officials will have 21 hours to make sure the Golden State's lights work. The 20 sentries will monitor things such as power grids, truck and rail deliveries, 911 systems, airport traffic and baggage systems, civil disturbances, hospitals, etc. (Los Angeles Times 11/07/99)

PLN, Indonesia's national electricity board, was recently asked by an Indonesian newspaper about its Y2K preparedness. The reply is a gem: "We can observe what happens (at midnight 1999) in Western Samoa, New Zealand and Australia and still have 6 hours to make plans.

Assume government/business will take care of it, so why worry?

Assume government/business WON'T take care of it, so head for the hills.

Be Prepared:
NO FEST FOR THE WARY
Many businesses and government agencies will require employees to work this New Year's Eve to respond to Y2K-related complications. Often, these requirements do not just apply to tech workers; rather, many nontechnical workers as well must be at work or on call from late December to early January. Washington Gas Light will prevent all of its employees, which total nearly 2,000, from taking leave between December 27 and January 7. Similarly, Potomac Electric Power will prevent its 3,700 workers from taking vacations between December 27 and January 8. Many, such as Inova Health System, will require employees to be sober and within an hour's drive of work on December 31 and January 1. Internationally, several countries will cancel leave for senior military officers, partly to have

them available in case of a problem, but also to encourage quicker Y2K repairs. (Washington Post 07/08/99)

Hoarding (over time/last minute) Revenge of the Mormons

"Morning after" problems

Hawaii vs Mainland impact/consequences/warning

Chinese airline response best--make CEOs fly on Dec 31/Jan 1.

BUT PUBLIC SAYS: "Y WORRY?"
Despite early warning signs such as described in the two previous items, the public seems to be shrugging off the Y2K problem. A USA Today/National Science Foundation poll indicates that the number of people who expect "major problems" in 2000 because of the millennium bug is down from 48% in June to only 34% now. And 30% express confidence there will be "no problems at all" that will affect them personally. (USA Today 31 Dec 98)

Only 51% of American respondents expect rioting at the beginning of the New Year, according to a CNN (or CNN/Times) poll reported on Cable Network News this Sunday. somewhere between 17% and 21% of those questioned said they were arming themselves in anticipation of Y2K.
Sun, 21 Nov 1999 From: Vincent K Pollard

One of Dator's many laws about the future is that There is no such thing as a worst case scenario, just as there is no such thing as a best case scenario.

Many people and many industries are organized entirely around making money off of other people's misery. And Y2K is a huge growth industry. It is a huge boon--or boondoggle--for unemployed computer scientists, for example--all those old (and they were old) computer specialists who still knew Cobol, the language of old mainframe computers. But reports are that most of these guys are already out of work.

Y2K HAS COST YOU $365

Although he's convinced that the money is well-spent, Commerce SecretaryWilliam Daley said that "billions of dollars have been diverted from other uses to fix the problem". The Y2K problem has cost U.S. business and government agencies $100 billion so far, which amounts to $365 for every American citizen. Daley says, "Is this a lot of money? Absolutely. But the potential cost of not doing anything was far greater." And now, he says, "the greatest cost to the economy is behind us." (Washington Post 18 Nov 99)

http://www.house.gov/reform/gmit/hearings/testimony/990120lg.htm Excerpts:

"...estimates of global expenditures to fix the problem are on the order of one to two trillion dollars which is about 3-5 percent on average of every country's annual gross domestic product. ...all countries will be affected--to one degree or another--by Y2K related failures [creating] widespread consequences because of interdependence between sectors
worldwide. ...most countries [will be unable] to respond adequately by 2000. "Global linkages in telecommunications, financial systems, air transportation, the manufacturing supply chain, oil supplies, and trade mean that Y2K problems will not be isolated to individual countries, and no country will be immune from failures in these sectors. ...the incredible complexity of global interconnectivity and interdependence, and the effects when some parts of the information technology baseline start to fail, is a daunting challenge to interpret and analyze."

It is worth noting that most of the early money spent on Y2K was NOT spent on trying to fix the problem, but on trying to figure out ways you would not be held legally liable for anything that goes wrong. It is arguable that the Y2K problems will be worse than they needed to be because so much money was spent on figuring out ways to limit liability and so little on fixing the problem.

MOST Y2K FIXES WILL ONLY LAST A GENERATION
The fix used to patch 80% of the worlds' computers to avert a Y2K crisis is actually only a short-term remedy called "windowing." Rather than using a permanent fix called "expansion," which requires transforming all two-digit year-dates found in software into

four-digit year-dates, the "windowing" patch is a trick that forces software to "guess" whether dates fall in the 1900s or the 2000s; typically, lower numbers (perhaps up to 30) will belong to the new century, whereas higher numbers (such as 87) will belong to the old century. Although many experts say this is the only practical way to solve the problem, others are warning that the "windowing" approach is just pushing the problem under the rug for awhile. Keith Rhodes of the General Accounting Office says, "It's like the Fram oil filter guy: You can pay me now or you can pay me later. It's not solving your problem. It's delaying the inevitable." (San Jose Mercury News 15 Mar 99)

Some interruptions more serious than other
        Need electricity, for that need oil and deliverability.

I hope the governor, the national guard, and the police, have contingency plans. I hope they won't need them, but they certainly had better have them.

Fireworks on New Years Eve, and no electricity or water: The Great Honolulu Fire of 1999?

But there is no evidence any politicians--or any other human--takes the future seriously, so why should they worry about Y2K?