

WITH George Gilder, *Futurist and Author*



George Gilder is Chairman of Gilder Fund Management, LLC and host of the Gilder Telecosm Forum, a powerful network of talented, tech savvy investors, engineers, and entrepreneurs. He is also a Senior Fellow at Discovery Institute where he directs Discovery's program on high technology and public policy, and the former Editor in Chief of the Gilder Technology Report (published by Forbes Inc., 1996-2007). Mr. Gilder co-hosts (with Steve Forbes) the annual Gilder/Forbes TELECOSM Conference, which offers attendees elite analysis of ascending and disruptive technologies and social politics. He was interviewed at the Atlas Experience, a conference run by the Atlas Economic Research Foundation at Niagara on the Lake on July 18th 2008.

Frontier Centre: I understand your expertise coalesces around the interface between technology and public policy, have I got that right? And if so, how did you get into this area?

George Gilder: I've been interested in the micro-chip ever since a friend of mine named Peter Sprague, who was a founder of National Semiconductor Corporation, told me that soon it was going to be possible to put scores of transistors not on the head of a pin but on the point of a pin. This seemed to me to be just such an amazing feat of miniaturization that it dwarfed all the other changes that I saw in the world economy. It seemed to me that this movement towards the microcosm, as I called it in my book, would change the world economy and open world wide webs of glass and light and air and really unify businesses and enterprises and entrepreneurs around the world.

FC: As briefly as possible, how has technology changed the rules of public policy since, say, the 70's?

GG: I don't think technology has radically changed the rules. It's just increased the penalties for defying the rules. You used to be able to have an insulated little economy with high tariffs and perhaps could survive. You wouldn't do well but you'd survive. Today you separate yourself from the global economy and you're left vastly behind. All the growth in the economy over the last 20 years is essentially stemmed from the steady expansion of trade and exchange which has been spearheaded by the opening of ever more capacious world wide web networks of glass and light. Fibre optic lines around the globe bring everybody together in new enterprises that span the globe and this is the change. If you try to insulate yourself from this process you just fall behind and into poverty and decline. That's really what's been proposed for America by Barack Obama. He somehow sees that we can insulate ourselves from the world economy and I think that is a real peril for the United States.

FC: From a Saskatchewan, or Manitoba, or Alberta perspective, I'd like to base a few questions off that. One is that British Columbia and Alberta have signed TILMA (Trade Investment and Labour Mobility Agreement). Manitoba and Saskatchewan have stayed out. I'm guessing that you would say that's a very poor public policy move.

GG: It's just ridiculously self-destructive. Adam Smith saw centuries ago that by expanding markets you expand opportunity. What those laws do is just contract opportunity in Saskatchewan. They reduce this part of Canada into a

Lilliputian economy that can't really participate in the global economy.

FC: Similarly, Saskatchewan has a history of crown corporations, government-owned business, there are around 30 of them including SaskTel, the telecommunications company which is government-owned and has a mandate of only serving in Saskatchewan. Once again how will the change in technology impact...?

GG: Well here again you have a little, reactionary phone company that can't respond to the changes around the world that are transforming the internet into a broadband world wide web that will be dominated shortly by video teleconferencing and other developments, 3-D virtual worlds that will just leave Saskatchewan behind in a diminishing, old regime.

FC: We have an ongoing debate which is kind of connected to the government-owned network industries and it's this: On one side there's the belief that the rural areas of Canada will de-populate, the health boards will consolidate, the schools will close down and really that urbanism is the future. On the other side there's the belief that technology will reduce the costs of living in remote locations and in actual fact we're about to see a rural renaissance. Do you have any view about the role of cities versus rural living?

GG: Both those things are true at once. There will be people who have command of all the new technologies and they will be able to live where ever they want. Some will choose to live in the cities and some will chose to live in rural areas. It may change in accordance with their phase of life. When they are bearing children and they'll move to where the schools are best. Increasingly they will be able to choose where they will be welcomed and stay where they're well-treated. The real issue is whether they will have children. That's the big issue in Canada that they have a reproductive rate of about 1.45 now. That means in 5 or 6 generations there won't be any Canadians. Whoever occupies that territory will come from abroad. That's the threat to Canada as it currently conceives itself of a particular ethnic composition and heritage, it will be lost to immigrants who happen to come. It's necessary to bear children if you're going to have a future.

FC: Just sort of basing off the demographic changes, one of the other debates we're having is about the future of medicine. Andy Kessler's book *The End of Medicine* made the contention that the real costs are

being driven down by technological advance and medicine will become a commodity and it will no longer make sense to deliver it in a monolithic system. Saskatchewan, of course, is the home of Medicare where we effectively have a ban on the private provision of any medicine. What do you see as the future of medicine and in particular socialized medicine?

GG: Medicine is becoming a technological industry. There are all kinds of applications of wireless. You'll have sensors on your body that report adverse events. People with a history of heart disease will have instant response to changes in their physical condition. All of this administered through wireless systems that can create a new fabric of medical care that's outside of hospitals and ordinary medical institutions. The whole field of medicine will be transformed. It's hard to imagine that set of bureaucracies that have particular bureaucratic interests will be able to respond effectively to this challenge of high tech medical care. Andy Kessler's book, he's a close friend of mine and who comes to all of my technology conferences... and I think he's right on target with that book. It's a very amusing book too.

FC: Switching topics slightly. There's a belief in Saskatchewan that profit is a zero sum game. I want to expand on what you said in your recent speech where you gave a prescription for understanding profit that would be quite different to the rationale that a lot of Saskatchewan policies use to have cooperative ownership or public ownership of various utilities.

GG: Profit is, first of all, the entropy in an economy. Entropy is an information theoretic concept that means unexpected returns, unexpected results, and unexpected information. Profit represents the unpredictable upside of an investment. The interest rate defines the predictable upside. Profit is the unexpected surplus beyond the predictable upside of an investment process. I believe that profit in moral terms also reflects the index of altruism of an investment. Profit's often seen as a reflection of greed. I think that's complete nonsense. When you think of what a profit is it's the difference between the value of a good or a service to the people who produced and the value to their customers. So it reflects the degree to which a particular enterprise understands the real needs of their customers. It's an index of the altruism, the index of the orientation toward the needs of others of a particular business venture. I think profit is both the unexpected return, so if you banish profit you impoverish a region because if you banish profit in a particular region or a particular industry you just seal it off from the unexpected benefits of entrepreneurial creativity. Creativity always comes as a surprise to us so you can't plan it. You can't suppress it. You have to accommodate it and profit is the yield of creativity. If you want a barren, uncreative wilderness – you banish profits.

FC: With the recent Canadian census results being released for household incomes, there has been a wave of quasi research and reports sent to the supposed income and equality across Canada. You mentioned the word which described these people as, "gapologists". Could you expand on your view of this policy focus on income?

GG: I think people who talk about gaps between the rich and poor in income just want to focus their socialism on what they believe to be politically more acceptable form. If you're worried about gaps between the rich and poor you are essentially a socialist. You want to increase government power to redistribute income. Redistribution of income destroys wealth. It just predictably destroys wealth and restricts opportunity. So it means in the end you may get equality because all the productive people will leave for the United States or some other place but you may get equality or some other province of Canada but it's the equality where everybody is poor. I think this is really almost what the gapologists want. They are chiefly envious of the wealthy and they don't understand that all of their opportunities and all of their comforts and all their prosperity are dependent upon the unequal contributions of some of the leading entrepreneurs.

FC: Slightly different topic. The government of Saskatchewan and the federal government of Canada have recently entered into an agreement to spend I think around about half a billion dollars on sequestering carbon into the soil. (GG laughs) I wonder,,, (continued laughter) I think I can already see the answer here but I wonder, if you believe that is a prudent preparation.

GG: It's just complete idiocy. I mean it is extraordinarily hard. If you're sequestering the carbon released in coal for example, it's 10 times more carbon after it's oxidized than there was the original coal. It just means incredible inefficiency all for no benefit at all. It's absolutely no benefit. There's no danger of some infinitesimal increase in carbon in the atmosphere from 0.001% to 0.0017%, this is a 70% increase. It will have no impact on the weather. It will have no increased improvement for agriculture. That's all that carbon dioxide does. There's no evidence, as you should read in a fine Canadian book *The Deniers* that carbon dioxide does anything bad for the weather. So it's just a complete waste of money. It's just taking a half a billion dollars, which might be used to do something productive in Saskatchewan and burying it in the ground with that carbon.

FC: Certainly if you've listened to the mainstream media, the United States is under pressure due to high energy prices, the burden of foreign conflicts in places like Iraq and Afghanistan, and in a housing meltdown. Are you an optimist or a pessimist about the future of the United States and will technology be a part of the answer?

GG: Of course technology will be a part of the answer. Technology continues to advance at a tremendous pace. There are all sorts, hundreds of new energy technologies are being advanced. Including new ways to extract oil from tar sands in Canada are being initiated in the United States. Using electro-magnetic radiation to replace the vast amounts of water that currently are employed in the process of extracting petroleum from tar sands. So there's just all kinds of new technologies emerging.

The housing crisis, as it's called, or meltdown should be counter-poised with the current nearly 70% of the American who own their homes. This is an incredible feat that's never before been attained by any country. It's been

accomplished over the last decade. Some of it was through imprudent mortgages later imprudently combined with other mortgages and various mortgage securities of dubious collateral and those will cause some economic damage but as a share of the economy the whole sub-prime mortgage crisis is far smaller than the savings and loan crisis of the early 80's that was followed by the 10 years, or 20 years, of overwhelming growth in the United States. I don't think there's any serious housing crisis. I think there's a lot of housing stupidity and speculation and financial pedophogory but I don't think it's a big danger.

Energy prices are high chiefly because the dollar is low. The American dollar has declined because a belief in two administrations that somehow a cheap dollar is good for our exports and in turn we face the balance of payment crisis that could be relieved by having a cheap dollar. If you believe that American government wants a cheap dollar, what do you do? You sell dollars. Selling dollars has reduced the value of the dollar. Petroleum was priced in dollars but the price in gold went up about as much as the price of oil. It's largely a monetary event. The other facet of it is beyond the emergence of the Chinese and Indians as big consumers of oil. The other cause of this oil price is the nationalization of petroleum resources around the world. In Russia, Latin America and Venezuela and Saskatchewan energy has been nationalized to a great extent. Energy companies don't invest in finding new energy. They prefer to just exploit their existing resource. So there has been less exploration in recent years. The green movement has also been guilty of restricting oil exploration on what I believe to be completely spurious grounds. There are more

polar bears than ever. There's no danger posed by oil exploration to Alaska or any of Canada. It's just really a great error which reflects an anti-industrial sentiment more than real concern for the government. I don't think those particular problems as it were the world faces a jihad is a danger to all of us. The U.S. is engaged in trying to resist it in various ways. I think most of us are happy that somebody is out there trying to combat this real threat which reaches its pinnacle in widespread declarations that Israel should be removed from the face of the Earth. I mean it's pretty extreme and the idea that we all can sit at home and watch another Holocaust seems to be immoral and dangerous to the world.

I think the United States will do fine. We are in a turn to the left at the moment which will be bad for our economy but I think the economy will revive and in general the U.S. will be bailed out by the expansion of Asian economies. The Canadian economy, because of its commodity basis, is actually a force for growth and expansion at the moment in the world. I think it's going to be alright. Technology does continue to advance. Ray Kurswell predicts over the next century that there will be a thousand times more technological progress than over the last century. This may be an exaggeration but still it does capture the exponential expansion of technological possibilities that we see in nano-tech and information technology and bio-tech and all of these concerted and related industries that have emerged over the last 20 years.