Governing the Futures: Dream or Survival Societies?*

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Abstract

I took the opportunity of an invitation to address the Fifth General Assembly of The International Parliamentarians' Association for Information Technology (IPAIT), held in the Finnish Parliament, Helsinki, January 16, 2007, to ask the parliamentarians gathered from around the world to reflect on current forms of parliamentary democracy as once-brilliant social inventions of the late 18th century, now woefully out of date. I reminded them of the worldviews and technologies early Founding Fathers (and they were all male) had available to them, compared to now. I noted that although there had been many opportunities to reinvent governance since the 1770s, all governments everywhere are still only marginally-improved versions of the 18th Century models. The members of IPAIT are all elected parliamentarians who are expert in the use of information technologies (IT) for governing purposes. While congratulating them for endeavoring to integrate IT into modern governance, I said it was like putting headlights on a horse and buggy: while they probably could see farther down the road, they were still in a horse and buggy whereas they should be in a spaceship by now, if governments were to keep pace with the other changes going on around them. I challenged them to use IPAIT to begin a worldwide dialog and process leading to new democratic governance systems based on cutting-edge technologies and worldviews, and new and continuing challenges and opportunities from the futures. I dare you also, dear reader, to engage in this vital process.

Key words: communications, democracy, design, Dream Society, electronic direct democracy, governance, information technologies (IT), IPAIT, newtonian, quantum, social invention, Survival Society, Ubiquitous Society, worldviews

"Democracy" as a Social Invention

Constitutional representative government, often mistakenly called "democracy", was one of the greatest inventions of the 18th Century. It rivals other18th Century inventions such as the sextant, the steam engine, the cotton gin, smallpox vaccination–and the guillotine–all of which changed the world in important ways. But all of them also have been superseded by vastly more powerful inventions, while constitutional representative government persists as a strange relic from the past, in more or less the same form, and certainly on the basis of the same mindset from which it originally emerged (Conger, 1973).

Almost all other social inventions, such as those in business, transportation, communication, education, and even religion, are vastly different from what they were in the 18th or 19th centuries, but the forms and features of constitutional representative democracy remain essentially unchanged from when certain social philosophers, primarily in England and France, invented the concepts, and then political craftsmen in France and some of the former British colonies in North America first created structures derived from the ideas, and tried them out as a basis for governing a nation.

In the case of what became the United States, the Founding Fathers were true inventors of enormous wisdom and creativity. They viewed the world from a common set of intellectual assumptions that derived from two of the major intellectual forces of the day – Newtonian physics on the one hand and a humanistic theology called Deism on the other. They also were inspired by the various living experiments in representative governments that they saw in the thirteen newly-independent states. And so they came up with the idea of "constituting" a government for what they hoped would become the united states of America by handwriting, with a quill pen on parchment, the essential features of that government. This document–this so-called "constitution"–still serves as the procrustean bed of US national government, essentially unchanged in any major way from when it was written in 1787. [2]

The British, French and American examples served as models of modern government everywhere in the world. Even though there are many important differences between those three and the hundreds of other governmental structures they inspired, I would argue that essentially all governments of the world today are still relatively minor variations of those original 18th Century ideas and forms.

Certainly, the underlying Newtonian assumptions of an orderly world whose problems can be solved by rational deliberation is still assumed in modern governance, in spite of reams of scientific research from scores of academic disciplines over the last two hundred years that make it very clear that humans are not and should not be presumed to be fundamentally rational, and that the world of Newtonian physics is simply one special way of understanding a world better also understood by quantum physics (Becker & Slaton, 1991; Carson & Martin, 1999), string theory (Greene, 2003; Kaku, 1994; Woit, 2006), or varieties of evolutionary complexity (Huston, 2000).

But we all remain stuck with the old, once-great, social invention.

Rethinking Governance

There have been at least four times since the end of the 18ᵗʰ century when humans have had a chance to re-think forms of governance, and to re-invent governance on the basis of modern, scientific understandings of the operation of humans and the environment, and on the basis of new communication technologies.

One time was immediately after the Second World War when many of the old colonial empires fell apart and new, allegedly sovereign nations were created. But there was no fundamental rethinking of governance at all at the time. Every one of the so-called independent nations more or less adopted the governing systems of their former colonizers. There were not even serious attempts to modernize the pre-colonial forms and philosophies–which would have been an interesting option.

The results of that lack of vision and courage are around us everywhere. Only a few of the former colonies are vigorous nation-states now (though some are clearly more vigorous than others) and many are what are now being called "failed states." How much of their failure is due to the obsolescence and irrelevance of their formal structures of governance may be debatable, but that the form of government and underlying philosophical assumptions play a role in their failure is beyond debate, I believe.

A second major opportunity for fundamental governance re-invention followed the collapse of many communist states in the 1990s. To be fair, I should also point out that there was an opportunity, wholly missed, when communist states themselves were first created in the early 20ᵗʰ Century and then also following the Second World War. While there was some initial experimentation within the Soviet Union early on, the USSR ended up with a written constitution that, while different in many important details from the constitutions of capitalist countries, was nonetheless based on precisely the same epistemological and technological basis as the governments of 1789.

Marx and Engle were rather vague about what the world of communism would look like, once achieved, and had not focused at all on the structure of governance after the Revolution. As a consequence there was nothing in the canon of Marxist literature to guide Lenin and others, and so they unthinkingly borrowed the old bourgeois concepts and forms when they created the first and subsequent communist states.

And when many of those states collapsed in the 1980s and 90s, rather than taking the opportunity to imagine new forms of governance, old national forms and furies from the 19ᵗʰ Century arose to compete with the legal advisors from France, England, and the United States who rushed in and sold, all too successfully, their form of government to the former socialist states.

I was part of a small band of people who did our best to prevent this from happening. Led by Prof. Fred Riggs, a colleague at the University of Hawaii, we called ourselves "COVICO"–The Committee for Viable Constitutionalism". Primarily, we tried to get the citizens of former communist nations not to buy the dangerous "presidentialist" system of the US–a form that most often leads to military dictatorship, experience has shown. But we also tried to persuade them not to assume that parliamentary forms are the only alternative, either. "Let's rethink governance from the ground up on the basis of modern science and communication technologies", we argued.[3]

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But in vain. Our frail voices were drowned out by the money-fueled bells and whistles of the constitutional lawyers from the American Bar Association and the Agency for International Development of the US State Department, and their counterparts in other Western nations with used governments to sell.

The third opportunity for governmental re-invention is now, and there are two parts to that opportunity. One part is the attempt by the sovereign nations of Europe to create some kind of a pan-European polity. Though the process is currently in hiatus, and certainly can fail entirely, I remain optimistic about the emergence of a true European Union eventually. And I watch the process with interest--and great sadness (de Búrca & Scott, 2006).

While the literature of the attempt to create a European "constitution" is full of statements about "New Governance", I don't see any examples of truly new governance at all. I see a lot of interesting tinkering at the margins, but nothing that seems to exhibit a willingness to put existing and historical examples to one side and fundamentally to rethink what "governance" means, and how it can be achieved, given what current science tells us about the bases of human behavior; given the challenges and opportunities facing humanity now and for the futures (compared to the challenges of 200, 100, 50, or even 10 years ago); and especially given the modern communication technologies that exist now or might exist, or could be created to exist for the purposes of evolving new forms of governance appropriate for the 21st Century and beyond.

And that is where you come in. You are the second part of the opportunity for governance redesign in the present. You are not only experts in governance. You are also experts in the use of electronic communication technologies for governing purposes, often called "e-government".

Almost all of the discussions I hear and reports I read about e-government assume the continued existence of the old forms and concepts of government, and just want to add ICT to the old forms[4]. While that is better than ignoring these technologies, it really is like adding electric lights to a horse and buggy: you might be able to see a bit farther down the road, but you are still in a horse and buggy, and not in an automobile, or a spaceship, or a teleportation transporter, where you could and should be instead.

Design Challenges Faced by the US "Founding Fathers"

Let's go back to my comment that government was a great social invention of the late 18th century. What kind of an invention was it? That is to say, what design problems did the Founding Fathers of the US Constitution, for example, attempt to solve? I won't go into detail on all of them but here are some challenges that are illustrative of the rest the Founders had to solve[5] :

Challenge one:

The Founding Fathers believed that all men are self-centered sinners. So how can "evil" men govern themselves?

By the way, it is important to know that the belief that all men are greedy, evil creatures *is* a fundamental assumption underlying American government and political philosophy. It explains a lot about Americans, then and now. Since we assume the

worst in everyone, we become what we assume, and so consider everyone who differs with us to be a terrorist (or a communist, or an atheist, or a European–depending on who are the popular sinners of the time).

So anyway, the first main challenge facing the American founders was how to have a government of men over men since all men are self-centered sinners.

The design solution was brilliant:

Design solution one:

First, assume there is something called "political power." Then "separate" the power necessary for governance into three "branches". Then give specific pieces of power to each of three "independent" yet overlapping branches of government so that "selfish power will balance selfish power," and thus create social good. An extremely clever solution to a knotty philosophical or religious problem.

Challenge two:

How can the thirteen colonies, now newly sovereign nations and with little experience of community among themselves at all, be persuaded to join into a closer political union?

Design solution two:

"Divide" "power" between the states and the central government. That division of power is now called "federalism" and was another clever solution to a perplexing problem of the time.

Challenge three:

But how could the populous newly sovereign states be convinced to share power equally with the smaller, less-populated states?

Design solution three:

Create a national assembly–a Congress–that is composed of two "Houses," one in which the states have equal representation regardless of their population, and the other where the states are represented roughly according to their population size. Require that all legislation pass both houses before it can become law. Again, a great solution to a thorny problem.

Design challenge four:

Since there was no king, and kings were all that was known as chief executive officers of nations, what should be done?

Design solution four:

Since there was no such thing as a "prime minister" at that time, the Founders invented a kingly position that they called "the president". He was to be the "best man" in the nation and would serve as head of state for four years unless elected again.

Design challenge five:

But that solution immediately brought up another problem: how can a single "president" be chosen for the entire nation? Since the colonies forming the union had no history of political unity and there were no means for creating a national political dialogue at that time (and no great faith in "the people" anyway), how could the voters in the widely separated new states possibly know who was nationally the "best man" to choose for president?

Design solution five:

The founders reckoned that the people could not know who the best man nationally was, but the people would know who their local "best man" was. So the Founders stipulated that the people would choose their local best man, and these local best men from each state would go to Washington in the winter, after the crops were in, to choose, after discussion, the national "best man" for president and the second best man for vice president.

This turned out to be a very bad solution. While we have subsequently fixed part of the problem, we have left the fundamental flaw of a single presidency not directly chosen by a majority of the people entirely unchanged, and that bad design vexes us very frequently, as it does at the present time when we have a president most Americans don't like, but no routine way to get rid of him without automatically getting someone worse, as we would in this instance and most others.

And so on for many, many design challenges for which the Founders usually came up with very creative solutions for the time.

But what was the fundamental nature of their design challenges? What were the basic problems they were trying to solve?

"Communication" as the Design Meta-Issue

I suppose there could be many answers to that question, but I ask you to consider that all of the challenges were about *communication*, and that their solutions were all ways in which communication could occur, given the intellectual assumptions and the technologies of the day. I repeat, "given the intellectual assumptions and the technologies of the day"[6].

And what communication technologies did exist at the time?

There were primarily two: either (1) people talking in places where people physically meet together, and/or (2) people writing on paper or parchment, either by hand or by the relatively new and cumbersome hand-driven technology called the printing press.

In the US of the time, there was no system of roads, rivers, or canals, nor anything other than sailing ships, horses, and horse-drawn buggies that could be used to exchange ideas among the inhabitants. There were no national newspapers or magazines, and few local ones.

There obviously was no such thing as electricity, radio, television, computers, or satellites.

Without the forms of transportation and communication available to us now, it made sense for the Founders to create a government based on the communication technologies of the time which required people to meet physically in a common place; to talk, argue, and decide; to enshrine their decisions in words printed on paper documents; and to have their decisions enforced by people acting on the basis of the printed documents which contained their decisions.

That made complete sense two hundred or more years ago. But does it make sense now? Does it make sense to continue to insist on electing people to go represent you in a physical place given the communication technologies of the present? I certainly don't think it makes any sense at all.

Does it make sense to enshrine decisions in printed words on paper instead of in pictures, or logos, or tactile and olfactory holographic virtual representations of forbidden or required behavior?

Or to enforce the laws by armed agents of the state instead of by electronic chips?

But in addition to not having the electronic technologies of the present available in the 18th Century, the founders did not have the knowledge resources we have either. No one in 1789 had heard of, much less thought the thoughts of, Charles Darwin, Sigmund Freud, Konstantin Tsiolkovsky, Albert Einstein, Norbert Wiener, Francis Crick, James Watson and Rosalind Franklin, Rachel Carson, Alfred Kinsey, Simone de Beauvoir, Carl Sagan, or James Lovelock.

In other words, every single design solution that we take for granted now as fundamental parts of the structure of government are there only because they were the best communication technologies available at the time constitutional representative governments were first created over 200 years ago.

And no one, as far as I know, has subsequently sat down, as the US Founding Fathers did in 1787, and asked, "how can we create a fundamentally new structure of governance given (1) modern and emerging communication technologies; (2) modern and emerging understandings of how humans behave and prefer to behave; and (3) the problems and opportunities facing humanity now and in the foreseeable future?"

I challenge you to be the people who become the founding mothers and fathers of new forms of governance for the new worlds ahead by asking and answering those three questions.

But wait: New worlds ahead? What might those new worlds be?

Anticipating "New Worlds Ahead"

I have been involved in futures studies for a very long time, so before I say something about what may lie ahead, let me say something about how to anticipate things to come.

First of all, I regret to tell you that it is not possible to predict the future. That is to say, it is not possible to say precisely what will lie ten, 25, 50 or more years ahead. So do not try to predict what will happen, and certainly don't believe anyone who says he can predict the future for you. Anyone who says he can predict the future just wants your money and will leave you to recover from the disasters flowing from the predictions.

Secondly, while it is not possible to predict the future, it is possible and necessary to forecast alternative futures. A forecast is not intended to be a prediction. A forecast is not necessarily a true statement. It is a logical statement; a contingent statement; an "if...then" statement.

And there is not a single future waiting out there to be predicted or even forecasted. Rather there are numerous alternative futures that we can and should anticipate by various ways and means.

But the most important thing about the future is that while it cannot be predicted, it can, in many significant ways, be imagined and invented. New forms of governance should be, among other things, ways by which humanity collectively imagines, invents, and constantly re-imagines and re-invents preferred futures.

Now in the time given me today, I can only touch on two of the many alternative futures lying before us.

Electronic Direct Democracy

You are all experts about the ways modern communication technologies are being used by governments today, which are primarily to improve agency and inter-agency information gathering, retrieval, and communication, as well as to facilitate communication between governments and citizens. I know you have given some thought to what increased communication between governments and citizens might mean for the future of elected, representative government in contrast with the possibility of electronic, direct democracy. I myself have spent a lot of time thinking, experimenting, and writing about electronic direct democracy, and I am all for it, especially if it is augmented by a system that allows each citizen to learn about, deliberate, and vote on any issue she chooses, and to delegate (and then recover at any time) that right to vote to a temporary, *ad hoc* representative whenever each citizen so chooses[7].

However, electronic direct democracy–that is to say, direct citizen participation in policy making–needs also to be balanced by effective citizen participation in all other aspects of governance as well, including the administration of policies, the resolution of conflicts (as citizens already do in some countries) and everything else. Direct democracy alone is certainly not likely to have much real meaning if direct citizen participation in all aspects of governance are not also fundamentally re-thought and re-formed appropriately.

People everywhere are expecting and demanding greater control of their own lives. It is absolutely clear that where the Internet is widely and easily available, and the content is uncensored, that more and more people are making decisions on their own without getting the approval of experts or authorities:

If people–especially young people--want information, they go online and google their question. They do not go to a library, ask a librarian, or read a book.

If they want to learn something, they ask their online friends or take an online class. They do not go to school and ask a teacher, unless they are forced to go by law or custom.

If they are sick, they go online before they go to a doctor.

If they have emotional problems, they go online and not to a psychiatrist.

If they want a divorce, they go online, and not to a lawyer.

If they want to shop, they go on e-Bay and not to a store.

If they are spiritually curious, they form their own online religious communities rather than go to a church, temple, or mosque.

And you can be sure they avoid formal politicians and current political structures as much as possible.

But that is only the tip of a gigantic onrushing tsunami. When I say, "online", I am already being old-fashioned because opportunities for and reliance on interactive electronic communication technologies are springing up all around us like mushrooms after a rain.

Interactive electronic communication devices are becoming ubiquitous, increasingly intelligent, and able to anticipate our needs, feelings and wants. We can expect them to become even more an unknown, unseen, but irreplaceable part of our daily lives in the future.

A "Ubiquitous Society"?

I know that the idea of a so-called "ubiquitous society" (or "U-Society") is not new to most of you. There has been a lot of discussion about an emerging U-Society in Japan, Korea, Europe and elsewhere[8].

The Dutch futurist, Marcell Bullinga, recently described the significance of a U-society for future governance in an article titled "Intelligent government". By "intelligent government", Bullinga means not the intelligence of politicians, judges or bureaucrats, but the intelligence of implanted electronic devices that are taking over most routine decision-making tasks from humans:

> *Making rules and enforcing them are important government tasks. Right now, laws are written down on paper and enforced by individuals. In the future, all rules and laws will be incorporated into expert systems and chips embedded in cars, appliances, doors, and buildings–that is, our physical environment. No longer will police officers and other government personnel be the only law enforcement. Our physical environment will enforce the law as well.*

> *Innovations in government will enable us to have a safer environment for law-abiding citizens because built-in intelligence in our environment will minimize fraud, global crime, pandemic diseases, accidents, and disasters. Law-abiding citizens will gain privacy, while criminals will lose it. (Bullinga, 2004, pp. 32-33)*

I am not sure that the "intelligent government" of a ubiquitous society will be quite as benign as Bullinga suggests since power-seeking individuals will still program the electronic chips. A student of mine at the University of Hawaii, Jenifer Winter, was awarded a PhD for a dissertation she defended in 2001 on the social implications of ubiquitous computing. Using a modified Delphi technique, Winter discovered that most people basically liked the idea of ubiquitous computing, but were very concerned about the security (Winter, 2003 & 2006). In contrast to Bullinga, they were concerned about the end of privacy as a concept and a possibility. I spoke with

Dr. Winter a month or so ago, and she said that since 9/11 and the enactment and extension of the PATRIOT Act in the US, and then more recently the Military Commissions Act, the intrusions by government that her respondents feared have increasingly become frightening reality in the US.

However, a ubiquitous society is only one aspect of a much larger and more powerful set of interacting and merging processes. For example most current discussions of a U-Society focus only on *electronic* communication technologies, ignoring the emerging role of biology, biotech, genetic engineering, and the like. The basis of ICT in the 21st century (and the most important technologies of the 21st century overall) are probably not going to be based on electronics alone. They are more likely to be based on biology, alone or in combination with electronics and nanotechnology. The information of life is the most important information of all. The communication that goes on between molecules, neurons, cells, and other basic biological components can and almost certainly will be used for social and political communication purposes at some point in the foreseeable future, and discussions of the futures of ubiquitous societies need to include that possibility.

This is not a new idea. One of the early observers was Susantha Goonatilake, a futurist from Sri Lanka, who had been discussing this for a over decade before putting it all together in *Merged Evolution: Long-Term Implications of Biotechnology and Information Technology* (Goonatilake, 1999). Goonatilake sees the coming merger of biology and electronics (and of cyborgs, artificial intelligence, and their environments–and indeed merger of life and nonlife) into a true "information society". I very much agree.

More recently, the American futurist, Ray Kurzweil, has written an extremely popular and influential book titled *The Singularity Is Near: When Humans Transcend Biology* (Kurzweil, 2005) in which he proclaims that the merger Goonatilake foresaw is approaching very rapidly.

So it may not be simply that ICT will ubiquitously surround humans. Rather, the main point may be that humans, and their technologies, and the environments of both, are all three merging into the same thing. Humans, as humans, are losing their monopoly on intelligent life, while new forms of artificial life and artificial intelligence are emerging, eventually perhaps to supercede humanity, while the once-"natural" environments of Earth morph into entirely artificial environments that must be envisioned, designed, created and managed first by humans and then by our post-human successors.

To be clear, the merger of electronic communications technologies with biological communications technologies is simply part of the rapid transformation of both the once-natural environment and the human-built environment into an entirely artificial environment while at the same time *homo sapiens* (and all once-natural life forms) merge, through natural evolutionary process as well as conscious genetic engineering, into that new artificial environment so that it will be impossible to perceive any one of them (humans, posthumans, artilects, the natural environment, and the artificial environment) without also seeing all the others at the same time.

This is true ubiquity.

And here we are, stuck with 18th Century governance forms and ways of trying to understand and guide these mighty tsunamis of change rushing towards us from the future. To say that fundamental governance redesign for such a world is essential is to understate the matter considerably.

I challenge you to be leaders in helping humanity address and guide the emergence of these transformational possibilities that current and new communication technologies may bring.

But of course such a future is not inevitable at all.

A "Survival Society"?

In spite of everything I have just said, this transformation is only one *possible* future from among many. There are numerous alternative futures.

I will call your attention to only one more, but one that I think very urgently also demands your greater attention.

I am extremely concerned that the combined impacts of global warming, climate change, sea-level rise, and the effective "end of oil" before plentiful, cheap, renewable, and "green" energy alternatives become available may soon force humans to drop their focus on the wonders of ubiquitous electronics, and to struggle with all our might to survive and thrive in a world that will have to become very dependent on basic human labor and face-to-face forms once again.

While global concern for these environmental and resource challenges is rising, many of the most important global players such as the US, Japan, and China, lag well behind. And, since futurists like myself have been trying to get political decision-makers to address these looming issues for the past fifty years without significant success, I am skeptical that humanity will address them in time to prevent serious social dislocations. It is much easier to envision a catastrophic future than a bright one, in this regard.

Moreover, to focus on another perspective entirely, I observe that our global neoliberal economic system with the American Empire at the center is built on such a fragile and growing base of national, corporate, and consumer debt that the slightest tremor might bring the entire global financial house of cards tumbling down, engulfing the world in a prolonged economic depression.

China, India, and/or the European Union might nimbly leap over the crumpled United States, and become the dominant drivers of a new world economy, but if both of these challenges occur at the same time--both global economic meltdown AND novel and overwhelming environmental and resource challenges–then we probably can just kiss the dreams of a ubiquitous society goodbye and turn our attention to very basic matters of survival again[9].

Conclusion: Begin Significant Governance Re-design

My basic message today is that, while it is not possible for me or anyone to say confidently what the future will be, I can say confidentially that it is not likely to be business as usual. Humanity is indeed faced with many unprecedented challenges and opportunities.

At the same time, my message is that the human invention that should be addressing these problems and possibilities–formal institutions of government–are among the most ancient and obsolete of all current institutions. Devised in the 18th Century in order to address 18th Century problems with 18th Century ideas and technologies, no government in the world today has been fundamentally re-envisioned and re-invented to address the problems and opportunities of the immediate or longer range futures.

Thus, humanity is left adrift as mighty social, intellectual, environmental and technological tsunamis race towards us.

But there is hope–and I am looking at it: you are the hope of future generations. I flew all the way from my little grass shack in Hawaii to urge you to become the founding fathers and mothers of new forms of governance for the 21st Century and beyond. It is your responsibility and opportunity as parliamentarians from around the world deeply aware of how electronic communications technology can be used for governance.

I urge you as strongly as I possibly can to accept my challenge, and to use the short time you have at this conference to begin a worldwide process of governance reinvention on the basis of current and emerging communication technologies and ideas. I want to see such a powerful and inspiring Helsinki Declaration of Interdependence emerge from this meeting that the old European philosophers and American Founding Fathers will be green with envy and admiration.

Your ancestors, and all future generations, are watching you. Do not disappoint them.

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Notes

1. The International Parliamentarians' Association for Information Technology (called "IPAIT") is exactly what the title implies: an association of elected parliamentarians, currently from 40 nations, who are their national parliament's experts on using information technology for governance. I was speaking at their fifth annual conference which was convened by the Futures Committee of the Parliament of Finland and held in the Finnish Parliament during an unusually snowless mid-January. See: <http://web.eduskunta.fi/Resource.phx/ parliament/committees/ipait/index.htx>

2. For more details, see, Harvey Wheeler, "Constitutionalism," in Fred Greenstein and Nelson Polsby, eds., *Governmental Institutions and Processes, Handbook of Political Science*, Vol. 5, Reading, Massachusetts: 1975

3. For more information on COVICO, see http://www2.hawaii.edu/~fredr/welcome.htm #covico

4. For examples of parliamentarian's interests in communication technologies and parliamentary government see, "Parliament and Democracy in the 21st Century," A Preliminary Report by the Inter-Parliamentary Union, New York, 2005; "IST for Parliamentarians," <EPRI_Study2_D102_revised_V2.pdf>; "E-Democracy Survey," <www.e-democracy.gov.uk, www.epri.org>; "A new agenda for e-democracy" < http://www.oii.ox.ac.uk>.

5. For more details, see Mika Mannermaa, Jim Dator, Paula Tiihonen, Eds., *Democracy and Futures*. Helsinki: Committee for the Future, Parliament of Finland, 2006; Jim Dator, "Civil Society and Governance Reform," in Jim Dator, Dick Pratt, Yongseok Seo, *Fairness, Globalization, and Public Institutions: East Asia and Beyond*. Honolulu: University of Hawaii Press, 2006; James Madison, Alexander Hamilton and John Jay; edited by Isaac Kramnick. *The Federalist Papers*. Harmondsworth: Penguin, 1987 (originally published 1789); Ralph Ketcham, ed., *The Anti-Federalist Papers and the Constitutional Convention Debates*. New York: New American Library, 1986; Charles A. Beard, with a new introduction by Forrest McDonald, *An Economic Interpretation of the Constitution of the United States*. New York: Free Press, 1986, (originally published 1935); Robert A. Dahl, *How Democratic is the American Constitution?* New Haven, Conn: Yale University Press 2003, 2nd ed.

6. The concept of governance as primarily concerned with "communication" was explored by Karl W. Deutsch, *The Nerves of Government: Models of Political Communication and Control*. New York: Free Press, 1963

7. On electronic direct democracy, see, Ted Becker and Christa Slaton, *The Future of Teledemocracy*. Westport, CT: Praeger, 2000

8. For discussion of a Ubiquitous Society see: Ubiquitous Network Society <http://www.itu.int/WORLD2006/forum/society.pdf>; Mika Mannermaa," Living in the European Ubiquitous Society" for the conference "I2010 – Towards a Ubiquitous European Information Society" <http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm>; Rho Jun–hyong, "Dynamic Ubiquitous Korea–Progress and Strategy for Success," < http://www.ica-it.org/conf39/>; Hajime Sasaki, "Toward the Realization of a Japan-Initiated Ubiquitous Society http://www.nec.co.jp/techrep/en/r_and_d/a04/a04-no1/a63.pdf

9. For sources on a "Survival Society", see: Kenneth Deffeyes, *Beyond oil: The View from Hubbert's Peak*. Hill and Wang, 2005; Paul Ehrlich and Anne Ehrlich, *One with Nineveh: Politics, Consumption, and the Human Future*. Washington: Island Press, 2004; Tim Flannery, *The Weather Makers: How Man is Changing the Climate and What It Means for Life on Earth*. New York: Atlantic Monthly Press, 2006; James Howard Kunstler, *The Long Emergency: Surviving the Converging Catastrophes of the 21st Century*. Atlantic Monthly Press, 2005; Dennis Meadows, Jorgen Randers, and Donella Meadows, *Limits to Growth: The 30-Year Update*. Chelsea Green Publishing, 2004; Daniel Quinn, *Beyond Civilization: Humanity's Next Great Adventure*. Three Rivers Press, 2000; Martin Rees, *Our Final Hour: A Scientist's Warning: How Terror, Error, and Environmental Disaster Threaten Humankind's Future in this Century–on Earth and Beyond*. New York: Basic Books, 2003; James Speth, *Red Sky at Morning: America and the Crisis of the Global Environment*. Yale University Press, 2004

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