

**COMMUNITY UNGROUNDED:  
GOVERNANCE, LEARNING AND SOCIAL CHANGE ONLINE**

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## COMMUNITY UNGROUNDED: GOVERNANCE, LEARNING AND SOCIAL CHANGE ONLINE

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*In turning to tools, you renounce the burden of what to do in favor of deciding how best to do it.*

*Thomas de Zengotita<sup>1</sup>*

*"Effective Use" might be defined as: The capacity and opportunity to successfully integrate ICTs into the accomplishment of self or collaboratively identified goals.*

*Michael Gurstein<sup>2</sup>*

*We do not see the network of networks only as a technological platform. Rather, we consider it as a new space of interaction between human beings, which we have created for our own benefit.*

*MISTICA<sup>3</sup>*

### FOOD FOR THOUGHT

I write this essay to provoke some thinking among community networking associations about the lessons we learn from taking the concept of community online. I believe that a deeper understanding of the consequences of committing to that cause, and attesting to the benefits it brings, can assist in its defense.

In recent conversations about the organization of a group in the Canadian province of British Columbia to be called the Broadband Community Champions Consortium (BC3), I have stated the need to express social change that moves communities towards

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<sup>1</sup> Thomas de Zengotita. **The romance of empire and the politics of self-love.** Harper's Magazine, July 2003.

<sup>2</sup> Michael Gurstein, **Effective Use: A Community Informatics Strategy Beyond the Digital Divide,** School of Management, New Jersey Institute of Technology, in draft, 7/30/2003.

<sup>3</sup> Daniel Pimienta's circulation, 22 Aug 2003, of the MISTICA document on "**Working the Internet with a Social Vision.**"

[http://funredes.org/mistica/english/cyberlibrary/thematic/eng\\_doc\\_olist2.html](http://funredes.org/mistica/english/cyberlibrary/thematic/eng_doc_olist2.html)

I am not alone in advocating the centrality of social change. But, writing as a Canadian, in a society with very high levels of connectivity, I'd guess we're a bit further into the application of social action online than the MISTICA document, based on the Latin American context, correctly anticipates. We're at the point where real communities are answering for themselves the questions MISTICA asks. We have operating community networks that can be analyzed to reveal some of the essential practices of daily life online, and therefore to express an "Information Society" in being rather defining a future in Canadian public policy based on already superceded assumptions.

autonomy as an explicit objective. A participant in one online forum categorized that recommendation as only leading to an “intellectual pursuit.” Since that “shoe” seemed to fit, I thought I should see what might happen if I wore it.

Beginning with the first World Forum on Community Networking in Barcelona, November 2000, I have been active in several forums,<sup>4</sup> online and offline, discussing the purpose of community networking. This essay is, in essence, a “cut and paste” summarizing my participation in these forums.

I began by assuming that my summary would merely edit together different facets of the same gem. If only that were true. Integrating the products of “distributing” my voice differently in different communities involves a sort of translation of myself to myself. While that self-organization may mirror in me the sort of distribution of functions across networks that I describe here, I suspect the result shows that the method is just as complicated as it sounds. The method is, of course, parallel participant observation. I am, however, very thankful to the many willing people who make it possible to share online learning in that manner.

Here is what I think we’ve learned so far:

- a. The structures of governance in what is mistakenly called an “Information Society” (the one we live in now) are self-organizing.
- b. The purpose of the Internet is to sustain interaction among open and self-organizing social systems.
- c. The pattern of social organization that emerges in this new society is driven, not by “information,” but by learning.
- d. Acculturation is the content of any dialogue on development.

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<sup>4</sup> <http://vancouvercommunity.net/lists/info/dotforce-wsis>  
<http://globalcn.tc.ca/mailman/listinfo/gcn-wsisinfo>  
<http://globalcn.tc.ca/mailman/listinfo/gcnp>

The “directors” list of Telecommunities Canada (closed)  
The Broadband Community Champions list (closed)

Garth Graham, **A manifesto for daily life online**  
<http://globalcn.tc.ca/bucharest/Manifestod2.doc>

Garth Graham. **Community: the link across digital divides.** Background paper for the panel on Community Networks and Globalization: Strategic Options, GCN2001, Buenos Aires, Plenary Session Panel, December 5, 2001. October 24, 2001.  
<http://www.globalcn2001.org/completos/panel03.doc>

Garth Graham. **Societ(e) connects the dots: the role of community networks in making the G8 dot.force relevant to the majority of the world.** Global CN2000: first global congress on community networking, Thematic Sessions Track1, global community issues, Barcelona, November 3, 2000.  
[www.bellanet.org/dotforce/docs/PGGraham.doc?ois=y;template=blank.htm](http://www.bellanet.org/dotforce/docs/PGGraham.doc?ois=y;template=blank.htm)

- e. “Community” is the most effective metaphor we now have for understanding the practices shaping the new self-organizing forms of governance.

Stating that these principles are true does not make them self-evident. After a digression into the risk of becoming more political, I will unpack those lessons learned and explore what a political message must reveal about governance, learning and social change online.

As there is in any society, there is a political dimension to citizenship in an “Information Society.” This will be a story about influence and advocacy, in short about where the real practice of political engagement online is heading. When you talk politics, some people find it a comfort to know which “side” you are on. I am a humanist, not a technocrat or a technophile. I am preoccupied, not by the technologies themselves, but by the question of use, by discovering the ways that we interact with and through the technologies to alter our relations and thus our identities. I believe there are things inherently human driving this particular transition. Seeing them clearly makes it possible to understand how the beneficial side of its unintended consequences can be realized.

#### COUNTERING THE OFFICIAL STORY OR, WHOSE END GAME ARE WE?

For most of my career, whenever I have heard someone evoke the need for "leadership" to solve major problems, I have tried to find a way to leave the room as rapidly as possible. It is my experience that leadership is always the problem and is never a route to its solution. Leadership is the key driver of processes of vertical social stratification. Whereas the processes that structure human relations into social networks act horizontally.

There are always rules, to be sure. But the existence of rules does not automatically imply the assumption of the necessity of rulers. The rules that structure community<sup>5</sup> and the rules imagined to structure a social hierarchy capped by people assigned the role of "rulers" (as if they were legitimate definers and imposers of rules that are somehow external to the systems they themselves inhabit) are not the same.

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<sup>5</sup> “One of the most heartening examples we’ve encountered is a junior high school that operates as a robust community of students, faculty and staff by agreeing to that all behaviors and decisions are based on three rules, and just three rules: ‘Take care of yourself. Take care of each other. Take care of this place.’ These rules are sufficient to keep them connected and focused and open enough to allow for diverse and individual response to any situation.” Margaret J. Wheatley and Myron Kellner-Rogers. **The paradox and promise of community.** In, “The community of the future,” New York, The Drucker Foundation, 1998, 15.

I am not alone in questioning this assumption. Take a look, for example at Lawrence Lessig's "The Future of Ideas: the Fate of the Commons in a Connected World." <sup>6</sup> By defining the "code layer" of the Internet as a commons requiring absolute defense in the public interest, Lessig is articulating a structure of internalized rules that configures fluid socioeconomic relationships in a way that is completely different from sets of rules that are externally and mechanistically imposed. Or consider Etienne Wenger's theory of learning as social practice<sup>7</sup> in which communities of practice are emergent rather than designed.

Conventional thinking about governance assumes that somehow leadership plays an essential role. Examining that assumption from the viewpoint of governance systems that self-organize shows that, if there is any role at all, it is not what we might expect. In the daily life of open networks, we don't need to know or plan anything in particular. We can make it up together as we go along. At the system level, there is no shadow between the emotion to act and the response. The mythic leader as someone who can decide to intervene in the process of making it up, as if they were somehow apart from the system of interaction, is merely one more perturbation in the flow of the system's response. The system will absorb their intervention as merely one more element of learning in the experiencing of its world.

My commitment to "community," rather than leadership, flows from the experience of seeing, over and over again, what happens when people can engage directly with their own problems in their own way. Such critical thinking is always a challenge to the accepted view of how things are to be done. But, ultimately, the essence of both productivity and humanity is creativity. The presence of leadership always distorts the consequences of allowing that capacity to blossom.

As an example of the context in which community networks confront the automatic assumption of leadership efficacy, and as they consider the risk of advocating change,

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<sup>6</sup> Lawrence Lessig. **The future of ideas: the fate of the commons in a connected world.** New York, Random House, 2001.

<sup>7</sup> Etienne Wenger. **Communities of practice: learning, meaning, and identity.** Cambridge University Press, 1998. 45.

"Being alive as human beings means that we are constantly engaged in the pursuit of enterprises of all kinds, from ensuring our physical survival to seeking the most lofty pleasures. As we define these enterprises and engage in their pursuit together, we interact with each other and with the world and we tune our relationships with each other and the world accordingly. In other words, we learn."

"Over time, this collective learning results in practices that reflect both the pursuit of our enterprises and the attendant social relationships. These practices are thus the property of a kind of community created over time by the sustained pursuit of a shared enterprise. It makes sense, therefore, to call these kinds of communities *communities of practice*."

here's the words of a senior public official in Industry Canada<sup>8</sup> speaking to the purposes of the BRAND<sup>9</sup> program:

“The end game here is the case made to Cabinet to do all this. It's a pilot to create the line-up to get into the real money and the real game. There's a high cost to you for being in it. But you are there because you believe in your communities and the Government of Canada does too. But **the real end game is for Canada to compete globally in the knowledge-based economy.**”

That was an accurate summary of present Canadian federal policy for “Connecting Canada.” I sort of agree with part of it. But, to paraphrase in order to express my unease, that objective is like a hard-nosed medical prescription. “You aren't that well – but trust the doctor. There's some bad tasting medicine you can take now to make you feel better later.” When those words were spoken, the speaker definitely intended to be supportive. Also, the person who spoke them has a known commitment to regional community development. But, however sympathetic the intention, what they accurately reveal, rather than tough love or candid pragmatism, is really paternalistic authority in disguise.<sup>10</sup>

To assume that national objectives will always trump local objectives ignores the distributed realities of online systems. For example, systems of commons-based peer production<sup>11</sup> provide a window into the structure of the knowledge-based economy. But, in those systems, authority and community are incompatible. When we are free to connect anything to anything, what we link together are the places and ideas that we inhabit. If you look carefully, the conventional wisdom is wrong. Power is no longer concentrated upwards or delegated downwards. It's distributed across networks of interaction.

But then again, what absence of irony would cause an entire country to trust a Department of Industry to “lead” it out of the Industrial Age and into the promised land of the “Information Society?” The functional classification of governmental structures

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<sup>8</sup> Prince George, BC, meeting of August 7, 2003.

<sup>9</sup> Broadband for Rural and Northern Development Pilot Program:  
[www.broadband.gc.ca](http://www.broadband.gc.ca)

<sup>10</sup> At some point, gentle reader, you may be moved to exclaim, “But what he's proposing instead is just self-interested individualism in disguise. For two reasons, I have no need to go there. First, while it is true that vigilance is one half of the price of liberty, the other half is responsibility. That word “responsibility” will show up many times in this essay. The balancing of competition and cooperation inherent in self-organizing systems forces responsible choice in the act of connecting. The systems themselves act to reinforce responsible behaviour. Second, we are now living in networks of networks. The units or entities that connect and interact, cells, nodes, individuals, communities, all face the same balancing equation, the same set of internalized rules. Our idea of what an “individual” is or does is shifting dramatically.

<sup>11</sup> Yochai Benkler, **Coase's penguin, or Linux and the nature of the firm:**  
<http://www.benkler.org/CoasesPenguin.PDF>

into vertical sectors has become a serious impediment to the emergence of a society where functional capacity is distributed across networks, and the social glue is community-controlled broadband.

Under the label of “consultation” on Canada’s participation in the International Telecommunication Union’s (ITU) World Summit on the Information Society (WSIS), Industry Canada has said:

“Creating and sustaining an information society requires the cooperation and partnership of business, government and civil society. **The private sector, through innovation, risk taking and investment, has a key role in developing a country's information and communications infrastructure.** Governments, on the other hand, need to provide the supportive policy and regulatory frameworks that allow for market flexibility while ensuring a fair marketplace. Civil society, including the full range of social interests, must be engaged in efforts to facilitate the development of a truly inclusive information society and maximize its potential in social, civic and community enrichment.”<sup>12</sup>

Specifically to counter such views, Manuel Castells has said that global alliances of common interest among corporations and governments have invented the construct called “civil society.” “The dramatic expansion of non-governmental organizations around the world, most of them subsidized and supported by the state, can be interpreted as the extension of the state into civil society, in an effort to diffuse conflict and increase legitimacy by shifting resources and responsibility to the grassroots.”<sup>13</sup>

Of course, it is easier to off-load and out-source government responsibilities, if the agencies that governments “partner” with, can be made to exhibit management behaviours no different from that of a government department. Government programs funnel money to institutionalize civil society as substitute channels for their own program delivery. But management is not the route to a just society. If the price of that money is the bureaucratization of daily life, it is too high a price to pay.

I agree with Castells’ description of government motives in the embrace of civil society. But the thing that is most offensive to me, in Industry Canada’s reading of that three part construct, is the idea that only “the private sector” is the fountain of human creativity (or, as they carefully put it “innovation”). What a bleak and limited view of the essential nature of culture and society.

Because of the power of their unexamined assumptions, even in something labeled a “consultation process,” there is no room for open dialogue. When what really is at stake is defining the nature of Canadian Society as an “Information Society,” and when all the “official” channels for doing that are so carefully circumscribed as to be meaningless,

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<sup>12</sup> <http://www.wsis-smsi.gc.ca/act/en/consultation/summitConsultation.htm>

<sup>13</sup> <http://www.chet.org.za/oldsite/castells/poulantzas.html>

then ...what? And yet, the open sharing of the diversity of Canadian experience is vital to any process of consultation that has meaning.

A responsible voice in the advocacy role of community network practitioners is not a “professional” voice. The practices that we advocate are the product of experience, not of credentials. We work in and through community-based organizations. As such, we should stand back from the rampant bureaucratization of “civil society” that is currently being pushed by governments. For example, the phrase “Non-government organization (NGO)” is revealing of an odd categorical assumption. If a community self organizes to get something done, it is actually outrageous to define that negatively by the fact that it is not government. Organization to act collectively is governance in its purest form.

The “why?” of association, the purpose of the new broadband “infrastructure,” is the churn of social, economic and political change. Achieving effective action in that context is slowed down by the continuing assumption of a need for a strong centralizing authority. That assumption perpetuates vicious cycles of competition in the context of zero-sum games<sup>14</sup> in circumstances where they no longer apply. That assumption sustains the separation of essential channels of conversation. That assumption socializes against the essential element of knowledge-based economies – the capacity to think – in the interest of controlling behaviour.

Rather than “global competitiveness,” the real end-game has become collaboration and networking among autonomous communities for social and economic development and change in governance of communities over all. Yes, the location of the balance of power is shifting. But it’s becoming almost purely local, not global. In fact, globalization<sup>15</sup> increases the local autonomy of communities to re-define who and where they are and what they can do.

To borrow a felicitous phrase from Pico Iyer, we have been imagining our rush toward globalization as “flying beyond all particulars to some universal abstract space.”<sup>16</sup> It just is not so! The global geo-political reality is that nation states need effective communities far more than communities need effective nation states.

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<sup>14</sup> “The basic trend is this: new information technologies open up new vistas of non-zero sumness. But typically the transmutation of non-zero sumness into positive sums depends on granting broad access to those technologies, along with the freedom to use them well. And, over the long run, polities that fail to respect this liberating logic tend to get punished with relative poverty. Far from being new, this is to some extent the story of history. One thing that is new is how vividly and swiftly the polities get punished.” Robert Wright. **Non-zero: the logic of human destiny**. New York, Pantheon Books, 2000, 198.

<sup>15</sup> Because globalization has brought down many of the walls that limited the movement and reach of people, and because it has simultaneously wired the world into networks, it gives more power to individuals to influence both markets and nation-states than at any time in history. Individuals can increasingly act on the world stage directly – unmediated by a state. (Thomas L. Friedman. **The Lexus and the olive tree**. Anchor Books, 2000, 14)

<sup>16</sup> Pico Iyer. **Global soul: jet lag, shopping malls, and the search for home**. New York, Alfred A. Knopf, 2000, p164.

Industry Canada will be unable to move beyond its current position on its own. The evolution of national policies for the uses of ICTs in socio-economic development will require far less of the present narrow objective of new products in the context of sectoral “applications” as the prime route to their generation. One consequence of that reliance is to reinforce vertical structures of interdepartmental competition. Dynamic policy evolution will require far more horizontal and open collaboration in a framework of issues and ideas.

Lead us not into competition as if that must become our prime directive. How strong is our faith in the governing structures of Internet culture?<sup>17</sup> Whose future do we intend to inhabit? Yes, in an interconnected world, competition does not disappear. But competition is always evidence of the failure to sustain cooperation. As a consequence of our intention to act together in the name of community and social change, what we should expect to salvage is our lost humanity.

#### CHANGE IN THE DETERMINANTS OF IDENTITY

But in a complex world in which we must find a livable identity, ignorance is never simply ignorance, and knowing is not just a matter of information. In practice, understanding is always straddling the known and the unknown in a subtle dance of the self. It is a delicate balance. Whoever we are, understanding in practice is the art of choosing what to know and what to ignore in order to proceed with our lives.

Etienne Wenger<sup>18</sup>

Recently, in the Government of Canada, someone asked a seemingly simple question, “Citizens are talking with their governments online – what does that mean?”<sup>19</sup> In a variation on Industry Canada’s theme of global competitiveness, one attempt to begin searching for an answer was put forward by Don Lenihan, consultant to Heritage Canada and Executive Director of the Centre for Collaborative Government, as the primary author of a particular “Digital Commons” proposal.<sup>20</sup>

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<sup>17</sup> The idea Internet or “network” culture is developed in far greater depth than this essay allows in: Mark C. Taylor. **The moment of complexity: emerging network culture.** University of Chicago Press, 2001.

<sup>18</sup> Etienne Wenger. **Communities of practice.** 41

<sup>19</sup> Various attributed to Alex Himmelfarb, now Clerk of the Privy Council, when he was Deputy Minister of Canadian Heritage, although I have no print reference to verify that attribution. The question hints at the possibility that the Government of Canada may have realized that the transformative issues of governance online run deeper than can be addressed by Industry Canada’s domination of related public policy. <<http://www.connect.gc.ca/en/100-e.asp>>

<sup>20</sup> The quotes in this section are taken from 2 papers by Lenihan found at:  
[http://www.crossingboundaries.ca/?section=reports\\_main](http://www.crossingboundaries.ca/?section=reports_main)

**Leveraging our diversity.**

**Post-industrial governance: designing a Canadian cultural institution for the global village.**

Lenihan finds that Canadians remain committed to respect for diversity. Their commitment represents social capital with considerable competitive advantage. “A society that has learned to accommodate – and even flourish – in the midst of cultural diversity has already taken a giant step toward developing the kind of learning environment that leads to innovation.” But, as Canadian society is redefined by globalization, the spread of Information and Communications Technologies (ICTs) and the mobility of populations, the experience of diversity changes over time. The move to e-government provides a huge opportunity to lever these reserves of social capital if the web of electronic connections can be “strategically designed” to achieve that end.

“The more socially, culturally, economically and technologically diverse a country such as Canada becomes, the more its citizens cease to identify themselves as members of a single, primary group. Instead, they begin to identify with a variety of cross-cutting communities.” As a result, their identities are “multifaceted and complex – a **network** that links a constellation of diversities.” “In such societies, individuals now play a comparatively active role in defining who they are and how they belong to a community.” In turn, communities composed of such individuals become “more interdependent, more networked and more responsive to acts of reflection.”

The key to having such “cultural networks” act as a powerful source of social cohesion is the degree of individual “openness” to intercultural learning. Such openness is characterized by a respect, achieved through tolerance, understanding, and the capacity for “identification,” which allows individuals to transcend their own cultural experience. “The unpredictability that results from integration is precisely what makes culturally networked societies potent sources of creativity and innovation...networked identities do not function like homogeneous ones.”

Lenihan bases his recommendation for using a “Digital Commons”<sup>21</sup> to explore the implications for governance in such a society on the impact of the changed identity of the individual. What he leaves unsaid is that, not only does the behaviour of the individual as network become unpredictable, so also do the behaviours of the multifaceted and complex communities made up of such individuals. External identity expressed as a function of the working of internal networks is a VERY important insight. But it makes behaviour at all levels of social integration – individual, community, organization, and society – fractal.<sup>22</sup> The networked shapes of those behaviours will repeat themselves at

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<sup>21</sup> “Public goods are like common lands in preindustrial society: they are abundant and available. Yet the old commons is different in several important ways from the Internet. Common lands are natural resources designated by a community as public. The Internet by contrast is a collective creation. Its value lies not in its natural qualities (good location, the right combination of grasses, trees, and so forth) but in the cultural objects placed in it by countless users. On the Net, each user uploads a cultural object, thereby making it available to all other users. The Internet is therefore a socially constructed public good.” Mark Poster. **What’s the matter with the Internet?** University of Minnesota Press, 2001. 57.

<sup>22</sup> “Fractal” is my word, not Lenihan’s. In a society of cultural networks, the internal rules that self-organize identity work at all levels and are as close to universality of values as you are going to get!

any scale on which they are examined. What “governs” identity formation in the individual also governs identity formation across major social groups.

Lenihan sees the individual as the “center of gravity” in a networked society. The focus of this paper is community,<sup>23</sup> but neither the identity of individuals nor communities is “centered” in networks. It is distributed. This paper explores the structural implications of distributed functionality for the shape that a networked society of communities online assumes. One key qualifier revealed by the community perspective is that it is governments, not citizens, that become the primary learners in any such experiment. Governments have the greater need to awaken to a present reality.

Lenihan chose to use the analogy of the “Commons” in a narrow sense. A full definition of commons would see it as an individual piece of land or as a major resource subject to communal use rather than ownership. However Lenihan describes it as a public discourse space within a municipality. In that limited sense, civil behaviors, and not economic resource management issues, bound the questions of communal use. Thus he is able to ignore the issue that surfaces in a broader understanding of the word – if governments can privatize the commons it becomes a market where price, not regulation, governs use. Governments are slowly abandoning their difficult obligation to regulate the use of commons, thus turning non-zero sum games into zero sum games.<sup>24</sup>

But every time Lenihan begins talking about the actual purposes of the Digital Commons, his own concepts immediately escape the narrow frame he’s using to try and contain them. This is because what he’s really talking about is the Internet overall. In spite of the local discourse space analogy, appropriating the name “Digital Commons” for a part brings the whole along with it. In effect, in his choice of a narrow definition he tries to

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<sup>23</sup> “...knowledge, practice, and technological artifacts are interdependent parts of an evolving social system. This concept of community, therefore, differs from those conceptualizations that view communities as groups of people. Instead, community is seen here as something that does not emerge from putting together a sufficient number of individuals. On the contrary, individuals became persons with individual identities through their membership in the various communities they are members of. Identity, in other words, is not something that is grounded on any possible list of attributes of an individual person. Instead, it is grounded on communities, with their specific systems of activity and collective meaning processing.” Tuomi.

**Internet, innovation and open source.** Firstmonday,  
[http://www.firstmonday.dk/issues/issue6\\_1/tuomi/](http://www.firstmonday.dk/issues/issue6_1/tuomi/)

<sup>24</sup> Non-zero sum games are sometimes described as win-win, whereas in zero sum games, if I win then you lose. “Game theory is a formal way of analyzing competitive or cooperative interactions among people who are making decisions – whether on a game board or in society at large. ... It is important to note, however, that for many circumstances game theory does not really solve the problem at hand. Instead it helps to illuminate the task by offering a different way of interpreting the competitive interactions and possible results.” Saul Gass. **What is game theory and what are some of its applications?** Scientific American, December 2003, 124. See also:

Robert Axelrod. **The complexity of cooperation** Princeton University press, 1997.

Ken Binmore. **Just Playing. Game theory and the social contract, vol. 2.** MIT, 1998.

William Poundstone. **Prisoner’s dilemma.** Doubleday, 1992.

Robert Wright. **Non-zero: the logic of human destiny.** Pantheon, 2000.

let Canadian governments continue to ignore the fact that Canadians already operate in a digital commons, and that Canada has already been restructured by that operation.

“In a cultural network, respect for diversity requires more than tolerance or even understanding of cultural difference. It requires personal insight into the impact that increasingly high levels of social and cultural diversity are having on personal identity.” That states the key determinant of a networked identity to be its capacity for self-reference<sup>25</sup>. That too is an essential insight. But I believe that Canada wouldn’t be the “most connected nation on earth” unless Canadians were already highly self-referential in thinking about themselves.

To be able to govern the individual from outside, the Industrial Society has an interest in the stability of identity. But stability in identity is the death of creative response to the experience of the real. In a Learning Society, the objective of socialization turns to enhancing the capacity of identity formation systems (i.e. networks) to self-organize. Questions of identity are not real questions unless they are self-governed.

Simple rules of self-reference shape or organize multiple patterns of identity that are systemic and open. I express textures of the moment in qualifying specific experience out of infinite possibility. My expressions of identity, my personas, cannot be described as “determined” by the Other. Identity is indeterminate, experientially self-organized in relation to the Other. Here’s the “I” in my eye, both the object and the subject of my affection and of your affection. I am what I am, and I am what you want me to be. The subjective experience of understanding my “self” as subject allows the network of associations that is me to self-organize relational responses to experience. This is an experiential realism<sup>26</sup> in which my “self” as network connects with your “self” as network in a network of networks.

A teller of a story is never an objective historian who stands above the event. They are always an event themselves and a part of the event they purport to account. This introduces an element of uncertainty into the description (the story) of the state of being. I, in the sense of my “being,” am not informed by an external sovereign authority. I am informed experientially through the webs of association that structure my present moment and are modified by it. The “I-ness” of me is a process of continuous

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<sup>25</sup> “In electronic cafes one cannot be authentic or be present in full presence since one’s body is not there and one’s identity is fabricated by design. Individuals may “feel” more real in cyberspace or more artificial, alienated, disjointed. Yet the machine solicitation is to reveal to oneself that one is never oneself and that this is legitimate, a condition of the new human-machine interface, the being of technology that has seduced humanity into its own heterogenesis.” Mark Poster. **What’s the matter with the Internet?** University of Minnesota Press, 2001, 37.

<sup>26</sup> George Lakoff and Mark Johnson. **Philosophy in the flesh: the embodied mind and its challenge to western thought.** Basic Books, 1999. George Lakoff. **Women, fire, and dangerous things: what categories reveal about the mind.** University of Chicago Press, 1987, and George Lakoff and Mark Johnson, **Metaphors we live by.** University of Chicago Press, 1980.

information relative to being here now. The shock wave of now breaks the flow of time into differences that make a difference.

Lenihan thinks this means institutionalizing a hands-on role for government. I think it means hands off. He says “Canada’s democratic institutions, practices and policies should be adjusted to engage Canadians more directly in the management of their own diversity.” I say, yes, by all means, change the institutions. But change them because Canadians are already engaged in an encounter with diversity, and their “institutions” have failed them by delaying the alignment of themselves with a change that has already occurred. In effect, the center of gravity for governance has shifted to community because community has no center.

If, as Lenihan says, liberal democracy was “a political theory about how to manage the relationship between personal and collective identity,” and must now become a theory that encompasses networked identity, then the ordinary Canadian citizen is about as post-modern as citizenship can get. But that word “manage” is very dangerous. I have not nor will I ever manage my networked identity. I have learned it, but not alone. I have learned it in a community of networked communities. The idea of community stands in opposition to the idea of management.

## SOCIAL CHANGE ON TIP TOES

It seems reasonable to assume that increasing a community's capacity to act on questions of ICT use will increase its autonomy and thus alter its relation to decisions about its own development. This is because it will be informed more intensely by becoming the teller of its own story. But making that assumption explicit is only the first step toward encountering good but unanswered questions. It doesn't get them answered, nor will I directly attempt that here. What I am attempting is to make the case that they should be asked.

Specifically, what is going to be inherent in the structure of community online that insures it can and will pay attention to some key questions based on that assumption? In "community," where and how does decision making occur? How does being online change that? What and where is the hard evidence that the increased community control of socio-economic decision-making, provided by acting more effectively in the context of networks, enhances the well being of community? The real answers to these questions are not theoretical and will emerge directly through the experience of becoming “ungrounded” by being online.

I think that there is a common objective linking the groups of people who associate for the purpose of sharing the practices of community development online. It is not true, as others commonly assume, that the primary "need" we address through our community networking associations is merely access to technology for those who otherwise wouldn't get it. Our intention is to increase local control of ICT infrastructure as a means of

influencing social and economic development, and political change. Our real common objective is:

*To share what is being learned about practices that increase community capacity to use ICTs for greater control of their own socio-economic development.*

Embracing that objective lets us address the causes of disadvantage in a systemic and experiential way. Many groups working for community development online quietly agree that such a change objective represents a true statement about the purpose of community networking. But some admit it only to them selves. There is a tactical question that gives them pause. How loudly and clearly should they state an agenda for change that they know can be perceived as radical?

Loudly declaiming the community control objective will contribute to the recognition that the purpose of ICT "infrastructure" is "use,"<sup>27</sup> not technology. This consequence of stating the objective becomes particularly important when governments start talking about addressing the digital divide. This is because digital divide strategies, in spite of the rhetoric of use, remain largely based on a technological determinism that is mired in industrial economic views of the ways that societies structure themselves.

So, tiptoeing toward speaking out for social change makes sense. It is prudent to act quietly, in concert with basic principles, rather than rush to political confrontation. But we need to keep that word "political" in mind. Decision-making is about politics, and politics (as the art of the possible in balancing the actions of the will to power) is always pragmatic, although never rational.

Maybe for now, for those associations whose funding still depends on the vertical institutional silos of the industrial economy, there is high risk in clearly stating the intention to work for social change. But, for the groups who self-determine their own mandates in the distributed contexts of networked economies and societies, the statement is not radical. It merely describes the essence of their practices in the world as they know it to be.

## UNPACKING THOSE LESSONS LEARNED

### **a. The structures of governance in an “Information Society” are self-organizing.**

A decision today to create a cooperative rather than coercive world would not have to be the realization of any single plan drawn up by any one person or council but could develop, like open software, as the common creation of any and all comers, acting at every political level, within as well as outside of government.

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<sup>27</sup> In the sense of “effective use” as defined by Michael Gurstein in the preface quote.

Beginning in the last half of the 19<sup>th</sup> century in Europe, with an altered view of the relationship of moral authority<sup>29</sup> and the individual, a new global conflict has slowly emerged among proponents of opposite views of the nature of systems, closed or open. Closed systems are mechanistic and are designed or authored from outside of themselves. Open systems are structured dynamically from within through self-organization. They emerge from complexity. There are no external authorities that govern their structures, although actions in their environment do alter the context in which they learn.

This new conflict flows from an epistemological shift that affects worldviews in general. In fact, the science and technology that shape our current social context, for better and for worse, is a product of that shift. The microchip is a consequence of a mechanics that is quantum and therefore not mechanical at all. The Internet is a product of that shift, not a cause of it. But so far governments worldwide, because of their all-encompassing experience of containing the will to power, have reacted to it negatively.

Governments still talk mechanistically in terms of development opposites that are bottom-up or “grassroots,” and top-down. But, because of the open systems worldview, now we all live in a world where society is governed by the distribution of functions across networks. A knowledge-based economy is a networked economy. The kinds of governance that we have now and the kinds of governance that structure networks are not the same thing. Conventional governance relies on authority, but the factors governing the formation of networks rely on self-organization and trust.

I believe that transformations of the practice of governance from within have advanced so far that they can no longer be stopped. That is not to say the nostalgic resistance of senior officials in public service to the loss of authority is futile. Resistance can make transformation into a total and painful mess.

There is no effective discourse among Canadian federal and provincial deputy ministers about the experience of being online. Whereas, the middle of the public service is online every day and doesn't think about it. All that the senior levels of the public service want to hear are pragmatic examples of being on the Internet that are described in terms they accept. But, if the filters used to select those examples depend on seeing the Internet in a different way, then there's problem. What I am outlining here is the pragmatics of an

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<sup>28</sup> Jonathan Schell. **No more into the breach: part two, the unconquerable world.** Harper's Magazine, April 2003, 41-55, 47.

<sup>29</sup> What is good? What's the basis of morality? In that new worldview, what forms the social order of the good society? The conventional notion is that the search for the good is objective and it will be found in universals. The good is something outside of, and larger than, the self. This is a view that depends on an understanding of rationality and self-interest that empirical evidence in the cognitive sciences is finding to be wrong. We just don't “think” (in the sense of how meaning emerges in, or is expressed by, consciousness) like that. The good is embodied and pluralistic. It originates from the specific nature of common embodied experience. It is driven by EMPATHY, not by self-interest.

altered point of view about the nature of governance. I cannot make that view resemble or represent that which it is not. And, without that “comfort zone,” there’s no opportunity to change the terms of discourse.

Only trust can sustain the level of transparency required for effective public participation in policy formulation in online systems of consultation that are interactive. In those systems, the processes of policy planning<sup>30</sup> will change from seeking to reduce uncertainty to seeking to increase adaptation through learning.

What is at issue in networks is a shift in the balance of power about making decisions to the demand side of the equation. If governments insist on defining us as merely consumers of government services instead of interactive political agents, then responsible citizenship demands that we become "smart" consumers. When we do, then dynamic systems of production and consumption of services become self-conscious. They begin to behave as Benkler’s systems of commons-based peer production. It turns out that online infrastructure is designed to assist just such systems. But it is early days in the transition to whatever it is that our society is becoming.

A better way to put it is that self-organizing systems never really “decide” anything as an absolute proposition. They merely “learn” in the context of experience.

There are some public servants, those whose services are fully interactive online, who accept and adapt to the online context as representing a transformation in governance. They know that their interactions with citizens in online communities of common interest are based on trust and not on delegation of authority. So governments are eroding from within as public servants who have been socialized to Internet Culture move steadily upwards in the hierarchy – thereby destroying hierarchy through the horizontal distribution of functions. But, in the majority, the guardians of the will to power do not and probably will not accept that change.

We can’t teach senior public servants anything about control that they don’t already know. But, how do they imagine that learning occurs? What “model” do they use to think about the process of learning and how to increase its quality and capacity?

Their intransigence creates two divergent views inside governments for predicting the future of governance online. These two “camps” do not talk to each other. In the camp of the defenders of existing systems of accommodating the will to power, open systems lead to anarchy. For them, Murphy’s Law is always defined as, “Anything that can go wrong will.” But there are also proponents of a networked future in which communications practices are predetermined by the behaviours of networked communities online. For them, Murphy’s Law is always defined as, “In the phase spaces of possibility, while anything that can happen might, consistent patterns will emerge.”

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<sup>30</sup> A fuller exploration of the implications for the policy planning process occurs in the section of this essay called, “Changing the policy planning system to Internet mode.”

But, of course, the future won't predict. However, we definitely can make conscious choices about the qualities of the future we'd prefer. While getting there is not assured, we do have a lot of latitude in picking the route.<sup>31</sup>

There are "civil society" organizations that are struggling to clarify what is at stake. For example, among the groups preparing for WSIS who are committed to a rights agenda, it has been said that we need to launch broad, open and inclusive public debates at many levels "about what information society we wish to build."<sup>32</sup> But to debate on those terms is to accept, without a deep examination of its assumptions, the vocabulary of the "information society" that ITU, as an apologist for its member nation states, has appropriated. For example, we do not "build" our society. That's a word from the technology paradigm. We grow our society and then it grows us.

There are critical assumptions "built" into the "common vision of the information society" expressed in the WSIS's draft document on principles:<sup>33</sup>

- That information and knowledge are commodities and subject to the laws of property
- That "partnerships" with business and civil society can be used to off-load the responsibility of institutions of governance for peace, order and good government.
- That the "digital divide" is primarily a matter of access to ICTs seen as "infrastructure."

It is my position that all three assumptions are false. They are not going to go away. And I am unclear as to what means might serve to get past them. But, in the world that ITU seeks to understand by its reference to the "Information Society," I would submit that the vision of open systems, not the pursuit of social justice within a framework defined as civil society, is the key source of radical practice.

Having provoked a debate about how information society visions shape its own role and purpose within the Global Community Networks Partnership,<sup>34</sup> I would respectfully suggest that conscious practice within the framework of a coherent open systems vision is evolving rapidly. The actions of the proponents of open systems are anything but anchored in past history. These are the people who, instinctively, will intensify reciprocal

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<sup>31</sup> "In the tyranny of forecasts, everybody struggles to meet the imaginary figure of their own making. A prediction is therefore not so much a description of a future happening as a result of knowledge and experience. One lets happen what one wants to happen." Ingrid Molderez. **Freedom and uncertainty**. *Emergence*, 1(3), 1999. 89.

<sup>32</sup> Sally Burch. **Campaign for Communication Rights in the Information Society (CRIS)**. Ministerial Regional Preparatory Conference of Latin America and the Caribbean for the World Summit on the Information Society. Bavaro, Dominican Republic, January 29-31 2003.

<sup>33</sup> ITU/WSIS. **Draft Declaration of Principles**. Document WSIS/PC-3/DT/1-E. As at September 19/03.

<sup>34</sup> GCNP is an international online community of national community networking associations. See also the Garth Graham papers cited in footnote no. 4.

relationships while, at the same time, resist all attempts to “organize” them in any conventional sense. If you look carefully inside large organizations, institutions and governments, you can find pockets of people engaged in growing communities of practice<sup>35</sup> online. Those communities are pushing the organizational contexts they inhabit toward a tipping point where open systems become the predominant force structuring their organizations’ interactions with the world around them.

But, however different the politics of trust and the politics of mistrust, both are still governed by human nature. The iron law of non-zero sum games remains. Cooperate, until the other player defects, then defect. But the trick is to defect while still remaining true to the principles of distribution that structure networks. And, if the end game is innovation, what’s the means? You cannot institutionalize or “mobilize” (that very mechanistic word!) the innovators. They are the people who say, “I cannot stand this any longer and I’m going to fix it.” While what they will do is going to be “unthinkable,” you really need to get out of their way.

## **b. The purpose of the Internet is to sustain interaction among open and self-organizing social systems**

The early history of the Internet <sup>36</sup> reveals the intentions of its designers. Both implicitly and explicitly, they were conscious of dealing with issues of social relations that can only

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<sup>35</sup> “We all have our own theories and ways of understanding the world, and our communities of practice are places where we develop, negotiate and share them.” Etienne Wenger. **Communities of practice: learning, meaning, and identity**. Cambridge University Press,, 1998.

<sup>36</sup> The concept of an open networking culture came from J.C.R. Licklider. ....  
ADVANCED RESEARCH PROJECTS AGENCY, Washington 25, D.C., April 23, 1963,  
MEMORANDUM FOR: Members and Affiliates of the Intergalactic Computer Network  
FROM : J. C. R. Licklider  
SUBJECT : Topics for Discussion at the Forthcoming Meeting.  
<http://www.olografix.org/gubi/estate/libri/wizards/memo.html>

In Memoriam: J. C. R. Licklider 1915-1990 “The Computer as a Communication Device,”  
reprinted from *Science and Technology*, April 1968.  
<http://www.histech.rwth-aachen.de/www/quellen/SRC61-Licklider.pdf>

Chapter 7 of *Netizens: An Anthology*, *Behind the Net: The Untold History of the ARPANET and Computer Science*, By Michael Hauben. <<http://www.columbia.edu/~rh120/>>

Howard Rheingold. *Tools for Thought*. Chapter Ten: The New Old Boys from the ARPAnet  
<http://www.rheingold.com/texts/tft/7.html>

*David S. Bennahum. Net Result; How the Internet was built. Posted Tuesday, August 27, 1996.*  
<http://slate.msn.com/?id=2933>

“What emerged from the debate was strong evidence that the networking community felt a deep stake in the creation of the Net, ARPA funding or no ARPA funding, and was trying jealously to guard its right to determine its future. In a realm where, in a sense, personal identity is defined

be called “governance.” The imagined idea that the technology could and should sustain a particular and more human mode of governance came first. People with a different point of view came to be in a historical set of circumstances that allowed them to act in realizing it.

The history of the Internet’s design and growth show it as the product of a particular world-view (or “culture”) – that of collegiality in a research community. The values of that community of practice were built into the design of the “technology” that was to support it. There was agreement about the way that the rules about making rules (called protocols, standards)<sup>37</sup> get made. In other words the governance of the net was understood in the Net’s design and incorporated into its software code and implementation.

The Net as a communications tool therefore exists to further those values. It is intended to express and anticipate certain forms of relationship. It sustains certain types of social networks better than others. It works best for other communities that ascribe to the cultural values that were built into the design. Those values represent a set of assumptions about what ought to frame or “govern” the structure of human relations.

In the development of Internet2 in United States and CA\*Net 3/4 in Canada, it is very apparent that the same research elite, with the same espousal of collaboration and community, is in charge of the Internet’s extensions. While they are only endogenously democratic, there is no doubt of the Learning Society’s capacity to rapidly appropriate, apply and extend what they are doing. For example, the Canadian Smart Communities Projects<sup>38</sup> are discovering that their main problems are those of governance in the relationships among participating organizations, not technology.

Of course anyone, even governments, can and will imagine other ways of doing things. And, if those ideas are also powerful enough to gain mind share, then technologies that express them will emerge. But, if we chose to modify something that has powerful mind share already, we should take into account what it is that we are up against. The “Learning Society” is largely in the process of defining itself.

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entirely by the words people choose, free speech seemed second only to concern for the survival of the realm itself.”

*[This excerpt of Wizards, a history of email titled "Talking Headers," appeared in The Washington Post Magazine on August 4, 1996. It was edited by Bob Thompson and John Cotter.] Copyright 1996 by Katie Hafner and Matthew Lyon. From the book Where Wizards Stay Up Late, by Katie Hafner and Matthew Lyon, Simon & Schuster Inc. Printed by permission.*  
<http://www.olografix.org/gubi/estate/libri/wizards/email.html>

<sup>37</sup> In organizations such as the Internet Engineering Task Force, the key criteria for decision making is “rough consensus and running code.”

<sup>38</sup> Jeffrey Roy. **Rethinking communities: aligning technology and governance.** Lac Carling Governments’ Review, Special edition, Smart Communities, July 2001.  
<http://www.itworldcanada.com/portals/portalDisplay.cfm?oid=009E6228-3176-4A84-987A4CE809121E7C>

Along with Castells, I hold that the categories of civil society, governments and the private sector are constructed social patterns that serve traditional mechanistic views. Whereas community online is a new type of relationship, one more typical of “Information Society” structures.

Because the Internet creates and sustains spaces of social interaction that are distributed, self-organizing, and local (in the sense of coherent group learning in a community of practice), action at the “global” level is neither relevant nor desirable. It should be seen as just one more iteration on a fractal scale. Action at the global level seen as hierarchy - action that generalizes and centralizes, rather than particularizes - can only be destructive of the Internet’s value as a messenger and instrument of social change. Any technical or regulatory “improvement” that interrupts the process of pushing the “smarts” to the edge is wrong. On the Internet, first there’s community, and then there’s nothing else.

Digital divide strategies assume that the Internet is “just a tool” that can be adapted to existing socio-economic and political institutions without major consequences for change. But the Internet is not value free. And the assumption that it ignores the dynamic relationship between technology and culture. In any particular cultural context, the relationship is chicken and egg. So, while communications infrastructure defines, or even pre-determines, communications practices, so to do communications practices predetermine the ideas of infrastructure in the design phase of its realization. The Internet is itself a message,<sup>39</sup> but that message is recursive:

*“Now we make our networks, and our networks make us.”<sup>40</sup>*

In the Industrial society, the communications practices of governments, businesses and communities were separated and distinct. Industrial society and Internet culture have two different worldviews, with no common vocabulary or will for dialogue. In Internet culture, as the practices of governments and businesses continue to converge (some say collude), the practices of communities rapidly diverge. In general, governments base public policy decisions on what they know – which is the market economics of industrial

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<sup>39</sup> “New communications theorists will arise, as if from straight out of the asphalt, the concrete, the vinyl tiles, or the Permapour flooring. But one thing will not change. First they will have to contend with McLuhan.” Tom Wolfe, in the forward to; Stephanie McLuhan and David Staines. **Understanding me: lectures and interviews by Marshall McLuhan.** McClelland and Stewart, 2003.

<sup>40</sup> William J. Mitchell. **City of bits**, MIT Press, 1995, 49.

Or, to put it another way: “From its simplest to its most complex forms, life emerges in networks comprised of webs of interconnected webs. ... In terms of network structure, this means that the site of emergence falls between too little connectivity, where systems are frozen, and too much connectivity, where they are chaotic. At a critical juncture, *more becomes different*. This is the tipping point where order emerges from disorder and patterns develop from noise.” Mark C. Taylor. **The moment of complexity: emerging network culture.** 187.

society. They tend to state public policy about Internet access as merely a question of price.

A critical battleground for this conflict is the question of Internet “regulation” in the sense of both its content and operation. In the sense that I have defined it here, that makes the conflict a clash of cultures. The Internet is a set of technologies that express the cultural values and interests of the proponents of open systems. That is to say it is the product of the worldview on the other side of the epistemological shift, not the cause of it.

The Internet’s primary purpose of sustaining open systems should be understood as serving needs for learning, not for control. As of now, the outcome of the growing battle over regulating its use in defense of the past or affirming its purpose in embrace of the future is uncertain. People who apply a theory of learning as social practice are more comfortable with the human condition mediated by daily life online than those who do not. For example, interesting community networks are magnets for libertarian sysops. But there are only a handful of sysops who understand that their role implies a responsibility for social change. The second group writes better code. And the second group insists that the code be open source.

As an example of content regulation, current copyright thinking does center on the abstract notion that ideas can be considered as private property. But, historically, that notion was only half of the concept of copyright. The other half had nothing to do with the current emphasis on private gain. The laws were enacted for the public good of rewarding people for sharing knowledge about their way of doing things, rather than keeping it secret. In the Industrial Age, that was understood to be philosophically sloppy but pragmatically useful. In a Learning Society, where social cohesion and economic interdependence demand equal access to the lingua franca of the Internet’s code layer, copyright needs to be carefully re-interpreted and applied in very narrow circumstances.

At the moment, the opposite is happening. The application of copyright in support of the commodification of ideas is broadening. If we support transition to a Learning Society, we need to view this trend as reactive and negative.

If you seek to defend the Internet as an instrument of open systems for learning and you hear these phrases; intellectual property rights, information security, international policy framework for the Information Society, you are probably encountering proponents of the power of nation states as closed systems of governance, regardless of whether they are in the technology or social justice camps. On the other hand, if you hear these phrases; open source, communication as public good, Internet code layer as commons, you are probably encountering proponents of the autonomy and responsibility of individuals to connect with each other, to self-organize and therefore learn, in open systems of interaction.

Defending the consensus on standards for open source codes and values for open systems that led to the Internet’s existence in the first place is far more important than regulating

the communications that it carries. The Internet is not “merely a tool” that can be adapted to serve the conventional purposes of governance or of social justice. Because it represents a worldview expressed through technology, those purposes are already being altered by its use.

More than the “system” of international institutions, the Internet is the only effective means we have discovered, so far, to support the self-organization of response to large-scale complex problems. By surfacing multiple points of view about intentions and consequences in our local and global interactions, the Internet saves us from those arrogant voices that claim omniscient authority. Those voices imagine themselves to be outside of the systems they seek to govern when now we know that they are not. Those voices attempt to channel thinking to the limits of what unitary points of view will accept, but in a world where multiple points of view already predominate.

The goal of social movements online should not be to establish and defend some bounded open space within the Internet. Within a social vision, all of it has to be considered open space already. The goal is to keep common that which, as a cultural expression of conviviality, networking and trust embodied in a technology, is already common. Not “make our own,” it is our own. The danger is that, as “they” comprehend its radical otherness, its radical challenge to the existing will to power, they will attempt conscious opposition that destroys or perverts its primary purpose (to sustain self-organizing networks as social networks that can interact). The main tactic they will use to oppose trust is fear.

But I’ve been sneaking up on you quietly with that phrase “communications practices.” It’s really just a euphemism for human relations. So the Internet arrives in our midst with its own messages about cultural values intact. Rather than “The Internet can boost human development processes that already exist,”<sup>41</sup> I say that it “will” do that as an expression of a cultural worldview. So, enabling “a space to speak with their own voices” is really a process of getting out of the way, of setting free the creative processes of dynamic self-organization in the context of non-zero sum games (i.e. in the context of community). Defending the Internet as the expression of an open systems worldview can thus be expected to lead to greater fairness as the ultimate beneficial outcome of connectivity.

**c. The pattern of social organization that emerges in this new society is driven, not by “information,” but by learning.**

“It has been argued that knowledge exists only in a social context, and that this social context is created by social practices. According to this view, knowledge is created and reproduced in communities, and knowledge makes sense only in relation to such communities. Furthermore, this view rejects the idea that knowledge can be decontextualized, or something that can in any trivial way be grounded on an “external reality.” Instead, this view sees knowledge as a product of a social process. Knowledge

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<sup>41</sup> MISTICA

organizes socially by institutionalizing ways of interpreting the world. Knowledge is embedded in social practices, conceptual systems, and material artifacts that are used in social practices. Technology, social practice, and knowledge complement each other and their evolution is part of the same process.”

Ikka Tuomi<sup>42</sup>

A community of practice called “deputy ministers” has just as much but no more capacity to learn and know about public administration in the context of the government they serve than does a group of rural farmers about crop production methods on the land where they grow rice. Rather than apply the spatial term “volume” of knowledge, I’d note that the channel capacities that inform the behaviours of each group are the same. All knowing is indigenous to the group that knows it. At every “level,” what the Internet interconnects is indigenous knowledge. Any voice on it is merely authentic relative to its context, never authoritative. Authority acts to close. Authenticity interacts to open.

It simply will not do to announce a society based on “information” without seeking a consensus on what that phrase means. My own best guess is that the noun “information” will resist clear definition and thus the achievement of consensus. But we may be able to describe processes that inform in terms of verbs, so that the “form” that results through a process of being in-formation is seen as the result of the process of becoming.

I prefer the word “learning” to the phrase “generation of new knowledge.”<sup>43</sup> If you think of access to knowledge as if knowledge were an object, then the epistemology gets out of whack. The danger for effective social action is then that you thereby help governments and the private sector to succeed in their attempts at enclosure and commodification of the imagination as property (i.e. intellectual property). If you are truly “in” the “Information Society,” then you prefer the fluidity of the verbs informing and knowing to the tangibility of the nouns information<sup>44</sup> and knowledge.

If we imagine social structure as composed of learning societies rather than information societies, we apply social constructs that change our ideas about systems of governance affecting the fairness of the human condition. The primary goal of closed systems of governance is control or stability in the social order. But self-organizing systems are also a form, but a very different form, of governance. They sustain a dynamic equilibrium through interactions based on trust, reciprocity and cooperation. Therefore they are inherently fairer in the consequences of their actions. The primary goal of open systems

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<sup>42</sup> Ikka Tuomi. **Internet, innovation and open source: actors in the network.** Firstmonday, [http://www.firstmonday.dk/issues/issue6\\_1/tuomi/](http://www.firstmonday.dk/issues/issue6_1/tuomi/)

<sup>43</sup> MISTICA

<sup>44</sup> I still like Bateson's definition of information as, "the difference that makes a difference," because it is both relational and self-referential at the same time. I'm pretty sure the processes of knowing and (in)forming are relational, self-referential and recursive. I think Bateson left "recursive" out of the definition. But it doesn't take much thinking about dynamic systems to realize that the real definition, when it comes, will include it.

Gregory Bateson. **Mind and nature: a necessary unity.** Bantam Books, 1980. pp. 72, 105.

of governance is learning. Since world level problems are complex, we all need learning far more than we need control.

But it's important to remember that the theory of learning as social process is about group learning, not about the "education" of individuals. Individuals learn and change all the time – but what is effective in causing the community to change? The open source idea of "rough consensus and running code" is a better approach to group learning than is the idea of "previous cooperative reflection"<sup>45</sup> as a step before action. This is because it describes a social process that is iterative, recursive, self-referential and, above all, linguistic.

We can modify the social contexts of human-machine interaction<sup>46</sup> (social networks as systems where both humans and machines are agents) that emerge online by writing or editing the languages that encode the software that form them. Editing code using open source development practices increases the capacity of online social networks to learn.

To learn our way forward collectively, we begin action first in the context of present experience. That is to say we must consciously remain open to the interaction of present knowledge with new experience. There's no "pause" button on experience. You cannot turn off how being in the world occurs. That's why the "just do it" of running code is an effective strategy.

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<sup>45</sup> MISTICA

<sup>46</sup> "According to actor-network theory, society consists of networks of both human and non-human actors. ... As the actors in the network can be both human and non-human, actor network theorists sometimes use the term actant to refer to such actors. Society, organizations, agents, and machines are all effects generated through the interactions of actor-networks. A person, for example, cannot be understood as an isolated entity; instead, he or she is always linked to a heterogeneous network of resources and agents that define the person as the specific person in question. Without his or her instruments, laboratory, and social relationships, a scientist, for example, loses his or her identity as a scientist." Tuomi. **Internet, innovation and open source.**

If you read IBM's 1 page statement of the 8 characteristics of an autonomic computing system, which resembles a biological nervous system.....

<http://www.research.ibm.com/autonomic/overview/elements.html>

...you realize that what they are NOT quite saying is that such systems really are alive! They would interact with the world around them as autonomous agents. People do that too, although perhaps not with exactly the same agendas. For example, even now programmers say that code doesn't really work very well outside of the social context in which it was written. When the community of practice that wrote the code is down sized, outsourced or laid off, you can buy the drives and the software and the copyright. But the damn stuff just won't interact with you because you just don't get the language of the country that grew it. Systems of human-machine interaction are social networks already. What IBM's research does is pay attention to that fact.

In the short-term, the word "infrastructure" seems to serve for a common understanding of what needs to get done about broadband now. But in the long term, any really good biological nervous system is going to give you an argument about the appropriateness of any such label.

The Internet is a tool that lets us have conversations, in a way we never could before, with many different people about how they see things. The Internet speeds up the way in which we can think of new ideas, the way we can change our minds about how things work. Very rapidly, it helps us comprehend different ways of seeing things that cause us to understand different ways of doing things.

The “knowledge” inherent in the Learning Society is a product of equilibrium at the edge of chaos. It comes more from the interaction of dynamic systems that learn their way forward in non-zero sum games, than it does through mechanistic systems that achieve stable states through control. Both the individual and the community are networks of dynamic systems.

Networks, as dynamic systems, are inherently self-referential. By being systems they express, not only what is conventionally understood as their “content,” but also the structure that conveys it. Thus the totality of their content and structure (what they are saying and how they are saying it) is accessible to all participants in the network. The system both experiences the world and expresses the operating model of that system in the world at the same time. That is to say, every participant can know what the system knows. Ultimately, as the network of networks, the Internet’s “purpose” is, if they want, to let all connected systems know what any system knows. The key “rule” that leads to a wealth of new ideas is that the choice of forming links is fully open. Then any link that can occur will.<sup>47</sup> Obviously it is not possible to predict the form of knowing that will emerge at those higher systemic levels of integration.<sup>48</sup>

In an industrial economy, the relationships among organizations and markets are of paramount concern. In a networked economy, there is a third layer of concern – the growth of networks of relationships between organizations and markets. Open and healthy webs of networked relationships in any given sector yield better market opportunities for all participants.

When you are on the Internet, there are as many markets as there are ways of seeing, but only one economy, the global networked economy. In that economy, the rapid re-alignment of distribution channels, the changes in patterns of how and what people buy

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<sup>47</sup> To “occur” does not mean to be active in use. It has recently become clear that decisions to link web pages are not random. The patterns that form follow the rules of power laws. You cannot predict in advance which are the links that use will reinforce. See, for example; Albert-Laszlo Barabasi and Eric Bonabeau, **Scale-free networks**. Scientific American, May 2003 60-69. Bernardo A. Huberman. **The laws of the web: patterns in the ecology of information**. MIT Press, 2001.

<sup>48</sup> The more we make our technologies resemble and behave like ourselves the more anthropomorphic or convivial they become. Then our relations with them cease to be matters of “use.” Our relation to such tools becomes inherently social. That is to say, we have begun to use technologies of communication to structure models of ourselves that interact with other models. To the degree that those avatars or agents act autonomously, our social relations become complex in a new way. What do you say to a tool that becomes anthropomorphicized? You say, “Hello.”

caused by e-commerce, cannot be planned or guided. They grow through direct experience of the consequences of decisions to create links.

To do what they do in that global market, networked knowledge workers have to be able to change their minds rapidly. They have to find ways around all obstacles that stop them from doing that. The value they provide for the money they are paid depends on how fast they can learn their way forward into new ideas. The knowledge worker, as an inhabitant and analyst of networked systems begins to work by asking, “what is the problem?”

Good questions are the first step toward innovation. Churn, diversity, multiplicity, and sufficient complexity are the sources out of which the new, the innovative, emerges. Good questions enlarge the views of both the askers and the asked. Even in a Learning Society, good questions are always a challenge to authority, to social stability. In effect, since a way of seeing is always also a way of not seeing, destabilization is the precise source for generating deeper ways of knowing.

All we are doing is talking – but now our way of talking has changed, and therefore our social context has changed. But we take our identity – who we are – from our society. Suddenly our social relations are no longer fixed. They are fluid. They flow like water and, like water, they flow around any obstacle in their way. So, the “knowledge” in the Learning Society is not a fixed thing. It is not a commodity or an object. It cannot be bought or sold. In the Learning Society we have access, not to knowledge, but to different ways of knowing.

But in what collective or “group” sense can a social network be said to learn? In the culture defined by systems of human-machine interaction, it learns far more than we are anticipating. I will call this, reluctantly, collective consciousness. But, moving “up” the fractal scale of social network structure, if a group can be seen to behave coherently in the community of groups, then the structure of that group can certainly be considered as exhibiting a function beyond the sum of its parts that is analogous to memory.<sup>49</sup>

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<sup>49</sup> Obviously this is a metaphor of community as mind. In this metaphor, the mental states of communicating individuals replace neurons, and acts of speech replace neurochemical transmitters. The collective memory of a community establishes itself when certain subsets of individuals within it communicate with one another repeatedly about certain topics or concerns. Such communications involve and evolve the expression of ideas about the context of common experience. Repeated interactive communications cause particular forms of expression (the way of seeing and speaking to the issue) to increase their potential to be descriptively useful.

As it is used, a language dynamically alters the semantic and linguistic forms of expression that convey the quality of its users’ experience. Individuals with new ways of seeing introduce new turns of phrase. Existing participants experiment with different ways of expressing themselves. Existing participants who experience variety in their circumstances perceive the meaning of long-standing patterns of expression in new ways. Some of these speech acts, the differences that make a difference, get reinforced. Thus they alter the ways in which the perception of common experience is shared and therefore the ways in which the collective behaviours of the community interact with the worlds it inhabits. Variation in language, for example shifts in dialects, is evidence that a community of like-minds is perceiving and remembering its world in a particular way. That is to say, language in common use among community members inside the community will alter to encode (or to “memorize”), the ways in which the community overall interacts outside the boundaries of itself.

The medium of participation in that memory is speech patterns in language. The members of a community are not themselves the real cells of the network's array. It's the emergent language patterns that structure a community and inform a "standing wave" of behaviours. These persist over time within the associative spaces caused by the community's existence. It's when the language fades to silence that the community is gone, not when a particular set of members depart.

FirstVoices<sup>50</sup> provides a web-based example of the application of a social theory of learning. It creates a global community of practice among linguists and language teachers about methods for saving languages from extinction. Through sharing the practices that save languages in an open fashion, something purely local is being sustained – because language encodes practical knowledge, indigenous knowledge, about how to live in a particular place. The "capacity" that is web-based is that of a particular language group (i.e. the encoded indigenous knowledge of effective relationship of culture and environment in a particular ecology) to self organize a local defense of the open systems principle of rough consensus and running code. But, in this example, the code is on the human side of the systems of human-machine interaction.

The essence of the interdependencies that structure community online is not the logic of the physical network connections. It's the relational logic of the linguistic network connections. What the online context adds is reciprocal responsibility for the expression and maintenance of several levels of common codes, protocols and languages. The agreement to abide by common codes of human-machine interaction is what allows any agent to communicate with and/or through any other agent.

The MISTICA document on "Working the Internet with a Social Vision." says, "the process through which knowledge is generated does take place outside the Internet." But you can't have it both ways. Either the "spaces" of social interaction exist or they don't. The fact that the spaces are "intellectual" - pure thinking spaces - not "spatial" or physical, does not mean that they are unreal. Spatial metaphors like, "new space of interaction...building knowledge," get in the way of our understanding of new and fluid patterns of social interaction. Those patterns are what I'd call "mindful" rather than spatial. That is to say their "design" is characterized by individual consciousness of how networked collective consciousness can be intensified.

A new generation is emerging whose whole socialization has occurred within the experience of being online. Their worldviews, their ways of doing things are beyond the struggles of transition. It's going to be exciting to see how the language they evolve to describe their experience transcends the limitations of spatial metaphors. I suspect that, rather than retreating into what we now categorize as virtual reality, their capacity to understand how encoded experience and place interact to cause consciousness will be far

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<sup>50</sup> <http://www.firstvoices.com>

stronger than mine.<sup>51</sup> I suspect their capacity to model the question of who benefits and who pays, and to “immerse” the decision-making processes in the answer that results, will tip the balance of power in entirely new directions.

To be “action oriented,” meaning to apply the technologies in isolation of the consequences of their use is kind of moral blindness. But, when I say this, I do not mean to imply that all development should stop until its consequences are understood. The recursiveness of dynamic systems puts development impact into the class of questions that are impossible to answer in advance. They must be answered after the fact through historical analysis. That is to say, they have to be learned. The iterative process of rough consensus and running code (meaning to embody what has been learned so far by expressing it in systems of human-machine interaction) is good enough to move forward in both social and technological systems.

In a learning centered society, the quality of life that matters is not the consumer’s value of choice but, rather, the mature individual’s value of confidence. That’s because, in the full implementation of the “open source” approach, it’s the social systems that are open. We, the community in being, are here, and we are going to risk being there, and in the process will change our identity through learning our way forward. But, regardless of imposed constraints or interventions it is only “we” who learn our way forward. No one, ever, “enables” us to that task.

#### **d. Acculturation is the content of any dialogue on development**

This expanded notion of information makes it necessary to reconfigure the relationship between nature and culture in such a way that neither is reduced to the other but that both emerge and coevolve in intricate interrelations. As these feedback and feed-forward loops become more complex and as change accelerates, development approaches the moment of complexity, which is “the tipping point” where *more is different*. What is emerging at this point is a new *network culture* that we are only beginning to fathom.

Mark C. Taylor<sup>52</sup>

Breaking out of a cycle of poverty requires new ways of people becoming informed about the choices they can make. Access to communications, to the means of becoming informed through dialogue, is essential to development. It is also a basic human need, because it is the key to the efficiency and effectiveness of all the other systems that supply basic needs – food, health, shelter, education, etc. As dynamic systems, those other systems learn their way forward via communications processes. Lack of access to the conversations that affect you, to the means of telling your story in your own way, is therefore a fundamental indicator of underdevelopment.

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<sup>51</sup> For example: "In affect, if not in intent, generated in the social spaces of what-evenness, the flash mob is the practical critique of the politics of representation: making an autonomous spectacle out of oneself. It doesn't represent anything but it expresses something quite unique: the power of combination to produce affect." Arianna Bove and Erik Empson. **Online generation**. Makeworld paper#3, September 2003, p 2. [www.makeworlds.org](http://www.makeworlds.org)

<sup>52</sup> Mark C. Taylor. **The moment of complexity: emerging network culture**. 4-5.

Recently, Richard Labelle, a development consultant with extensive hands-on experience of national strategies for ICT use, alerted me to the Vietnam UNDP web site supporting “national consultations on ICT for development.”<sup>53</sup> Based on my work as Director of the Vietnam-Canada Information Technology project (VCIT), 1998 to 2001, he asked me to comment on its approach to increasing capacity to integrate ICT use strategies into Vietnam’s current socio-economic development plans. In summary, here’s what I first said in reply:

1. They are using a “forums” methodology, as an outgrowth of the DOT Force Initiative.<sup>54</sup> It is far too “techno-centric” to fully address the more important question of “use.”
2. Locating this national policy exercise in a particular Ministry, especially a Telecommunications Ministry, ensures that it is driven by the need for capitalization of technological infrastructure. It also makes it more difficult to integrate ICT use policies with the national socio-economic development planning.
3. Forums consisting of high-level representatives of key Ministries preserve vertical channels of communication. They slow down progress toward the kind of horizontal networks that ICT use policies must facilitate, and they are certainly not “participatory” in any meaningful sense of the word. The Party, while inaccessible to direct participatory methods, is none-the-less a powerful horizontal influence on change (or not) in Vietnam’s “infrastructure.”
4. Vietnam already has a national strategy that grew out of similar “forums” – Directive 58<sup>55</sup>. The point of ICTs for development is development, not ICTs. The shapers of Directive 58 knew that. The key "policy" question for today is - to what degree is Directive 58 still relevant and in what sense does the current approach support its implementation?
5. I still feel that the World Bank’s promoted Comprehensive Development Approach (CDA) is the best way to ensure that Vietnam’s internal capacity to assess the impact on itself evolves on its own terms. It will foster a necessary horizontal network of key policy actors. In a way, the “forums” method does allow for a sort of pilot of CDA. But its obvious “off-the-shelf” roots in the DOT Force Initiative make it too technology centered to ensure that, as was the case

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<sup>53</sup> <http://203.162.130.50/ict/index.asp>

<sup>54</sup> <http://www.dotforce.org/>

<sup>55</sup> Communist Party of Vietnam, Directive No 58-CT/TW of October 17, 2000, on **Accelerating the use and development of information technology for the cause of industrialization, modernization.** <http://www.gaia.ca/appendixd.pdf>

with Directive 58, what is being assessed is change in Vietnam decided by Vietnamese.

Those first thoughts seemed an adequate response to Richard's request. But, on second thought, I turned to reviewing my personal recommendations to the Government of Vietnam following VCIT<sup>56</sup>. I was reminded that I based those recommendations on some assumptions about acculturation and that, perhaps, my reasons for doing so could benefit from further explanation. I then found myself revisiting a career-long accumulation of development rules of thumb and, more particularly, the importance of cultural identity to an understanding of how development works.

In the mid 80's, working with the International Development Research Centre (IDRC) as Regional Program Officer for Information Science in East and Southern Africa, I was a key participant in initiating dialogues about measuring the socio-economic impact of information systems. I, and several of my colleagues, began to ask, "How did we know that our actions for IDRC in the name of information science are serving the cause of development?"

The question was, of course, a subset of IDRC's science and technology mandate. It was iconoclastic to ask it from inside the organization since it implied that, however effective IDRC's methods, the lack of a way to measure their effectiveness meant that the methods themselves certainly weren't science. To the best of my knowledge, they still aren't. But that impact question has turned out to be impenetrable enough for me to happily consume half a lifetime seeking ways into it. I have found, if not complete answers, at least an unconventional understanding of consistent processes underlying fundamental change and a more social view of information theory.

I still recall the shock of recognition that the question mattered to me. I also recall that I found the approach to answering it that IDRC's Information Sciences Division then attempted to be of dubious utility. I remain uncomfortable with any approach to socio-economic impact assessment of ICTs that assumes the assessment is somehow centered on the technologies (or on the "information systems" as was the case with IDRC). For example, partly because they assume the technologies and their benefits a priori, the Harvard E-readiness assessment tools,<sup>57</sup> now being used in Vietnam and many other countries, have always struck me as merely euphemisms to disguise market penetration analysis.

The important word that is always evoked but never fully examined is "use." To me, the place to look for "answers" to use questions is never in the systems or technologies themselves. It is always in the social networks, communities or institutional structures within which people and their technologies interact. In other words, the answer was

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<sup>56</sup> Garth Graham. **Leapfrog strategies for Vietnam's digital economy**. Hanoi, VCIT, January 10, 2001. <http://www.gaia.ca/appendix.pdf>

<sup>57</sup> <http://cyber.law.harvard.edu/readinessguide/>

never going to be found through mechanistic or technical concepts. It was always going to be found by understanding dynamic cultural processes. In the impact assessment phrase - “who benefits and who pays?” - the determination of benefit and cost is ever and always a question of assessing values from the perspectives of all involved actors. Applying that premise will reveal that the methods of anthropology are the most useful approach to probing the structure of human values that sustains the system in being, not those of economics or the information and computer sciences.

The first step in impact assessment begins with understanding the society in being or, better yet, the role of the individual in that society. Then you have to understand how the technologies are affecting the way that individual sees the worlds that he or she experiences. Trying first to understand the technologies as technology, and then attempted somehow to extrapolate to the society, is always a dead end. Thus my continuing joy with Ursula Franklin’s definition of technology as “the way things are done around here.”<sup>58</sup>

Since the way things are done is really a consequence of a way of seeing how things are done, it is also a way of not seeing. Any analytical framework that assumes a particular technological base has inherent rigidities and consequences. For example, the DOT Force Initiative has conventional “perceptions” of the Internet as “merely a tool.” The consequence of this is to ignore the synergies that emerge from systems that are based on distributed and self-organizing functions and to reinforce comfort with vertical organizational structures and institutions. But either you are on the Net, or you are not.

Rather than dwelling on the negative, let me illustrate the consequences by proposing a completely different analytical framework, one based in “seeing” the Internet’s technologies as an expression of a specific culture.

In 1998, David Reid of the Department of Canadian Heritage and I collaborated on an attempt to develop a scale<sup>59</sup> that would measure adherence to practices (or world views) useful for living in a society of online networks. It occurred to us that the social unit “community” was a more useful scale at which to describe change processes than the social unit “nation state.” We sought to identify factors for measuring continuums of behavioural response to life in a world where social networks are modulated by ICT use. We suspected that these factors would be so much a part of our sense of self that we

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<sup>58</sup> Ursula Franklin. **Beyond the hype: thinking about the information highway**, Address, Breakfast on the Hill Seminars, Social Science Federation of Canada. “It is important to me to define technology and to say that technology, in my definition, is practice. Technology is, essentially, the way we do things. It is quite clear that many of the human tasks of providing shelter, food, guidance and order have not changed throughout history, however, how we provide food, shelter, health and housing has changed profoundly. The way we do things – which today involves, of course, machines, but also considerable knowledge and organization, planning and management. That is what I call technology, i.e. the way that things are done around here.” This definition directly encompasses McLuhan’s, “the medium is the message.”

<sup>59</sup> Garth Graham. **The animation of community: a quiz on practices for living in a networked society**. June 1998, unpublished.

would rarely think about them. We also suspected they could be used as a lens to better focus on the concept of “governance online.”

A community is a self-organizing social network of small groups. How are the choices that individuals make to live daily life in community affected by the condition of being online? The sociology of small groups identifies an ongoing struggle to address needs to accomplish tasks and needs to address emotional factors of belonging. To remain coherent over time, any small group continuously balances the interaction of these two needs.

We assumed that online zones of socialization would reward small group maintenance behaviours that are consistent with the rules of open systems and non-zero sum games. Could we, therefore, find any common threads in the diverse literature on self-organizing systems to shed some light on how daily life in community is modified by the condition of being online? Although we never found the resources to fully test and modify them to create an “instrument” that could easily be applied, the factors we found for our “map” of behavioural responses to living daily life in communities online included the following:

**ADDRESSING TASKS ONLINE:** One axis of the scale measured the “economic” dimension, assessing how the significance what speakers express in and through a communications system (i.e. the content of what they speak and the context in which they speak it) is valued. The continuum runs from the old economics of market competition for scarce resources to the new economics of community-based production systems and curves of increasing return in non-zero sum games. The five factors asked as questions for assessing where a person’s beliefs fit on that axis include:

- 1 **DISTRIBUTED FUNCTIONS:** Dynamic networked systems have no clear centre and no clear boundaries. It is the distribution of functions across a dynamic system, and not task specialization, that causes the system to spontaneously organize itself into patterns that work. Those patterns are in effect emergent behaviours, where the sum of the whole system's effects adds up to far more than the sum of the parts.
- 2 **EPISODIC OR WORKING MEMORY:** Social networks aggregate experience as they evolve through interaction. The group itself (i.e. the sum of its experiences) not just HAS an episodic memory. The "groupness" (the community of like minds) IS the sum total of its episodic memory. What a group does is always a status report that summarizes its current knowledge. In any idea space, recursively following what is "interesting" and reflexively following one's path turns experience into practice.
- 3 **ESTHETICS:** What we learn most from taking practice onto new ground is artfulness. And it is artfulness that defines quality in the expression of the self. The capacity to express an integration of functions in a networked identity depends on the degree of art that comes to bear on the process. The Industrial Society took art for granted and socialized its citizens for productivity. The

Learning Society cannot afford to do that.

Acting in the context of beauty, quality and simplicity is so central to the realization of community through self-organization that we need a model of the creative process clearly in mind. I found one in an essay<sup>60</sup> by Canadian novelist, Kim Echlin. She says that clarity of expression comes from past tradition and present practice, then adding something. The patterns to be found through practice are elusive, nerve wracking at first, measured, patient, the anonymous dailiness of life - repetitive tasks, repetitive possibilities, a world of tiny precision but one that accommodates to the contingencies of the present moment. But within practice you are moving toward an ideal, duplicating the traditional while experimenting with the different to make it a little better, on a determined quest for technical and expressive excellence, for ecstasy, the intense energy that leads to serenity, clarity, transparency....”in a space where nobody really knows how things are done.”

- 4 INCREASING RETURNS CURVES: Networked economies thrive on massless abundance, not on competition for scarce physical resources. Life on earth alters earth to begat more life (we make our networks and our networks make us). Anything that alters its environment to increase production of itself is playing the game of increasing returns. What you try to close will be by-passed. Networked increasing returns are created and shared by the entire network. The value of the gain resides in the greater web of distributed relationships.
- 5 DISINTERMEDIATION: The disappearance of the middle of things occurs in direct relation to the connectedness of the components of a dynamic networked system. Both specialized expertise and the material components of products can be displaced by the distribution of functional knowledge throughout a network to an enormous degree. When all of the components of such a system can "converse" (for example, via bit transfer) about the relation of tasks to the system's problem space, then modular recursion, not specialization, characterizes an organic relation of parts to the whole.

ADDRESSING GROUP DYNAMICS ONLINE: The group dynamics axis measured social or personal relations along a continuum of that runs from relational behaviours motivated by intentions for control by authority in closed or "managed" systems to those based on trust in open systems. The five factors asked as questions for assessing where a person's beliefs fit on that axis include:

- 1 PRINCIPLED RELATIONS: When boundaries are permeable, principled relations is the key element in defining what the group is and does, not boundary

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<sup>60</sup> Kim Echlin . **Fiddle and Bow: A Fugue Essay**. In "Taking Risks: Literary Journalism from the Edge." Edited by: Barbara Moon and Don Obe. Banff Centre Press, 1998.

definition. Therefore membership criteria<sup>61</sup> are not a central issue. The real question is the degree of a group's "openness" to the other. Openness does not require a "leadership" gate keeping function. Principles are at the heart of nurturing a group that maximizes human ingenuity in the face of complex problems. In order for the group overall to remain open to experience, everyone in the group continuously negotiates a contract among equals about equality, equity and tolerance.

- 2 INTERDEPENDENCE: Does the group negotiate external alliances freely and cooperatively or does it have to ask permission? Is the "social contract" imposed, or is it a contract among equals? The continuum of this factor runs from control to reciprocity, where trust- based reciprocal relations are the key to success. The imposition of an external mandate is an act of separation, not connection. It stops essential interdependencies from occurring. A "network" remains open or it is nothing. As a dynamic system, a network treats attempts to regulate it as noise and it re-routes around them.
- 3 CONVERSATION IS STRUCTURE: This factor measures the degree of awareness of being within a system and being open to hearing the messages that flow through that system. Conversation is an interpretative process about the possibilities of committing to some future joint action. But conversation is, by itself, also a medium. It defines a space of possibilities, a shared domain of interpretation (i.e. a "structure," although that's too fixed a word) that relates the speakers-listeners (the signifiers) to what the speakers-listeners say (the thing signified). Ultimately the domain of interpretation always remains open-ended. Communicative competence involves a capacity to express one's intentions and take responsibility in the network of commitments created by utterances and their interpretation. That is to say that utterances evolve a dynamic social network or "system" of commitments (reciprocity). The technical communications network is a tool that serves to make the evolving structure of commitments more explicit, more consciously accessible. But the commitments are about the relationship of the conversers to what they are experiencing and to what they may want to do about it.
- 4 ASKING GOOD QUESTIONS: Administrative management seeks comfort by minimizing risk. But, to survive and adapt, community online must eagerly seize the unknown. We should be leaving the door open for the unanticipated, NOT perfecting the known, NOT solving problems, and most certainly NOT managing knowledge as a resource. We should be staying on the edge because "a healthy fringe speeds adaptation, increases resilience, and is almost always the source of innovation."<sup>62</sup> Self- organization acts to supply a "view" (not a law) of how the

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<sup>61</sup> In fact, community cannot sustain itself as a complex adaptive system unless its constituent individuals have autonomy in their choice of membership.

<sup>62</sup> Kevin Kelly. **The nine laws of God.**

experience of encountering the unknown is being turned into practice.

- 5 COMPLEX FEEDBACK LOOPS: In Internet culture, the group dynamics goal is to achieve comfort in fluidity, not in mechanistic predictability. The real goal of group dynamics is not balance as stability or predictability. It is dis-equilibrium at the edge of chaos. Electronic networks, both intentionally and unintentionally, support complex feedback loops that structure social networks in a dynamic fashion. Social networks will therefore seek a persistent dis-equilibrium because equilibrium is death to dynamic interaction.

The greater the awareness of the operation and interaction of those factors, the greater the capacity to achieve community online and, therefore, the greater the capacity to enhance the quality of daily life in the Learning Society. Reference to such factors can be used to tell the story of socio-economic and political impact in a different way - as revealing how a process of acculturation is unfolding. The key question for effective ICT use strategy as public policy then becomes – how are the cultures of the Internet and, for example, of Vietnam<sup>63</sup> altering each other through their interaction? Addressing that question will always bring you back, as it should, to identity and values, not technology.

In the mass markets of the industrial economy, socialization to social norms is thought of as a process that is external to the individual. But integration into online communities is a matter both of individual choice and of responsibility. The individuals make their networks and, in turn, their networks make them. But they do have much more choice because their choice has become de-institutionalized.

In an economy where the food production system remains based on subsistence agriculture, the methods of making choices about technological change are inherently conservative. Most of the system is being, and the indigenous knowledge that sustains it, has evolved over centuries of interaction within a particular local environment. We who live there know that the way we do things around here produces food. If it ain't broke, we won't fix it, because the risk of crop failure is too great.

In an economy based on advanced information and communications systems, the methods of making choices about technological change are now driven by consciousness that the technologies have a half-life of eighteen months. That shape a major mis-alignment in the way things are done about making decisions between those two economies. My preference in moving toward re-alignment is to give greater weight to the indigenous knowledge that is local.

For the Poor, becoming better informed about the choices they can make increases the possibilities they have for improving their daily living on their own. Taking that view in the design of development projects that use ICT turns the focus away from the technology itself and toward information use and the processes that inform. The real goal

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<sup>63</sup> Or, for that matter, Canada.

for the use of information technology in development should be, not creating information systems, but informing choices.

The appearance of exponential growth in domestic Internet use in any country can be taken as a symptom of a fundamental restructuring of economic and social institutions. It signals that the country is on the threshold of integration into the global economy. But the technology should not be thought of as causing the change to a global knowledge-based economy. Technology is a symptom of that change – of a different way of doing things. Becoming digital is, therefore, NOT a sectoral process focused on growth in the high tech industry. It is a horizontal acculturation process. It would be much better to become high tech in the means of production and consumption overall than merely a producer of high tech.

The emerging social structure of a political economy of ideas is not the same as that of an industrial economy. The experience of community online has been in advance of what businesses and governments understood to be occurring. Initially, businesses and governments believed that the present society would go online as is. The majority of them still see the citizens of what are now networked economies as passive “consumers” of services, not as active extensions of the self into a dynamic and alterable set of communications systems. But seeing daily life online clearly is not just a question of understanding a problem of “access to services.” It is a question of understanding alterations to daily life as it is lived.

In some countries, governments now understand and reject that conclusion. In only the most thoughtful of applications is realization and acceptance occurring that citizens just might be acquiring effective skills in the use of the Internet to influence governments, and that doing so just might be a good thing for both sides of the equation.

Because it is a medium of communication, the Internet itself is the message. It is a message about a culture, about a particular way of seeing things and of doing things. While that message will always be viewed through the filter of a receiving culture, a culture is a dynamic relational process, not a static object. Message and viewpoint interact so that the filterers learn towards different ways of seeing. That is to say the message filterers support processes of acculturation. However, the degree to which culture is a dynamic experiential process is often forgotten. In any cross-cultural interaction, both the supposed senders of a message, as well as the receivers acculturate. There is no one point of view that knows best. No one who “brings” the Internet to Vietnam will remain unaltered by what they have done.

To make sense of Vietnam’s acculturation to the worlds of experience connected by the Internet, external investigators should not be blinded by their personal experience of the technology. Being connected by ICT-based extensions of social networks in Vietnam is always going to be unique to Vietnam. After the Vietnamese are done applying ICTs to their development, will they still be Vietnamese? Yes, of course. But, will the nature of being Vietnamese have altered? Yes, of course. But so too will the culture of the

Internet. And that is good, because the value of the Net to the Globe increases in direct relation to the diversity of its cultural nodes.

In the economies of digital networks, markets are conversations.<sup>64</sup> Networks are inherently social, not technical. They connect people. They cause an expansion of the social zones in which participation becomes possible. As the complexity of interdependence increases, new forms of productive organization emerge. Let the capacity for wider participation happen. Let networked markets as conversations or communities emerge. The urge to control supply blocks the spontaneous self-organization of demand. Networks are the one organizational form that learns its shape. An effective transition to governance online must anticipate the growth in capacity for learning that occurs in the spontaneous formation of networks.

Considering social networks as systems that inform and learn, anyone anticipating intervening in the systems of others for purposes of development must begin by understanding what makes those systems work. What is significant is, not just the development problem as such, but the socio-cultural and political context in which the problem sits. People in networks don't "use" information systems. They are information systems. What those systems know is not a product or commodity.

The real goal for the use of ICTs in development should be, not creating information systems, but informing the choices that people in networks, acting as information systems, are able to make. Development theory has encompassed the notion that the lack of capacity of the poor to inform themselves of alternative choices is one of the key determinants sustaining cycles of poverty. However it is a new idea that the capacity to "voice" local needs more effectively can be increased and is, in fact, increased in the cultural context that the Internet provides.

What we bring to international development from our own Canadian experience of being a connected nation is not "technology" as such. There are no plug-ins. We have absolutely nothing that can come "off the shelf" as is - because the uses of all our tools are completely embedded in our own cultural context. To assume that we do is, in fact, worse than folly. It is blind arrogance. We can only respond effectively from the basis of our own experience by immersing ourselves completely in the particulars of the development problem, the context in which it sits and the social networks that inform its resolution.

In other words, we have no development capacity at all until we have learned through experience how what we knew in one world might be translatable or not to the new world where we now find ourselves providing "assistance." Being "in the know" requires communicative interaction in specific cultural contexts. In the Learning Society, there are no teachers. There are only cooperating learners. What they are learning is the capacity to acculturate to rapidly varying cultural contexts. As their experience of

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<sup>64</sup> Rick Levine, Christopher Locke, Doc Searles and David Weinberger. **The Cluetrain manifesto: the end of business as usual.** Cambridge, Mass., Perseus Books, 1999.

acculturation intensifies, they increase their ability to create new cultural contexts in which learning can occur.

Politically and in development, I have always found cultural malleability to be a hard sell, even though identity, and therefore choice, is both the beginning and the ending of the development process. I do not have an answer for why this is so – perhaps because we’ve been socialized to believe that identity is a thing, not a network of working hypotheses about social relations? Refusing to abandon the question has caused me to crash and burn over and over again. I guess some things you never learn.

**e. “Community” is the most effective metaphor<sup>65</sup> we now have for understanding the practices shaping the new self-organizing forms of governance**

What makes me optimistic are the grass-roots workers and activists and other technical experts in many of these countries who ignore some of the very barriers I have described and are able to cultivate small oases of innovation and inclusiveness in problematic environments. They need support from each other and from outsiders, and of course the communication networks have helped make this easier. Because the problems and solutions are glocal—a mix of local and global, the need to convene and network both locally, regionally, and internationally puts a big burden on organizations with little money for travel or time spent away from their local efforts. We have to make better use of face-to-face time together and learn how it can be effectively augmented with common online tools such as chat, content management systems, web logs, mailing lists, databases, and wikis. The fabled gap may not lessen, but the threads will increase and loose network connections will grow stronger.

Steve Cisler<sup>66</sup>

In the socio-economic structures of distributed networks, even within highly organized systems of production, daily life is not lived in institutions or organizations. It is lived in communities.

It doesn’t really matter whether techies or social activists bring the Internet into community from outside of it. What matters is - how many new communities of practice does being online allow us to experience? Experience forms dynamically. Environment interconnects dynamically. Experience interacts with environment dynamically. If the mix of that interaction is new, then rapid change (i.e. learning) occurs in the worldview that experience encodes. On its own, combination produces effect. There is no doubt that many communities of practice about community networking online exist and are rapidly learning their way forward.

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<sup>65</sup> When I imagine being “inside” or “outside” a community, I am applying a sort of spatial container metaphor. Such metaphors are everywhere. For example, consider the sentence, “By *putting* community *online*, we begin to transcend the *limits* of that *physical* understanding.”

<sup>66</sup> Steve Cisler. **Digital divide: metastatsis of a buzzword.** Makeworld paper#3, September 2003, p 6. [www.makeworlds.org](http://www.makeworlds.org)

In Canadian law, the authority of a "municipality" to act is delegated downward from a province. Whereas "community" is not a legal concept. And therein lie a number of thorny and ultimately unavoidable constitutional and federal-provincial problems for the future of a "connected" Canada as a "national" policy. The presence of community, on the other hand, makes manifest a field of relationships (links) in which certain types of social networks (in fact, a majority of the types of social networks) interact. People, not infrastructure, are always the basis of networks. As social networks, communities are primarily concerned with reciprocity (or cooperation, or mutuality) in addressing common objectives and needs.

In networked economies and societies, the relations across the boundaries of a community (its interactions with the wider world that supplies its context) radically change. That is to say, the politics of what is inside and outside change. The encounters with those who are "other" than community will intensify in the context of networks. And a collective consciousness that "understands" the nature of that change becomes operational.

But to think of the "other" is really always primarily a question of identity. When we have gone online, will we still be us? Yes, and no. The capacity to sustain an autonomous and coherent "otherness" over time will depend on the degree that thinking about otherness is inside the social network that asks the question and yet is open to change.

Identity, or the expressed form of systemic network organization in being, is never fixed. It emerges continuously through a fine balancing between that which separates self from other (competition) and that which integrates or connects self with other (cooperation). To be alive is to interact. Neither the expression of the self in society nor the society through which it is expressed is an absolute.

Competition and cooperation are complimentary aspects of a dynamic system's evolution or, to put it another way, its learning. Pure competition destroys form. Pure cooperation freezes form into stasis. The dominance of either phase state is the death of being. I, Garth, am the medium in being that continuously evolves the message of self that emerges in society from the experience of separating and integrating at the same time.

When boundaries become membranes, not barriers, you need a heightened sense of self (and the ability to control the elements that define self) in order to usefully adapt to encounters with the "other." To be "me" in that context, what do I need to own? I need a self-aware sense of the role of associative relationships. I need to be conscious of multiple identities, of self as a network of networks that interacts with other networks. If I know who I am, and you know who you are, then we will have a pretty good idea of who we are when acting together on common interests. When we do, then community emerges.

That's why many key actors in the community networking movement are telling us that our processes of association should result in distributed federations (consortiums)

grounded dynamically in member needs – because that’s the kind of governance that seeds the ground for networks to emerge and to breathe freely.

Community networks are not in transition to the information society. They are a positive response to its realities, and therefore an unobtrusive measure of its constituent elements. But, in daily life online, achieving community is a primary goal of social interaction, and that makes community networking merely a means to that end. It is the concept of community itself that expresses a form of organization or association that is “open,” inclusive, and participative, a form that, through trust, can practically respond to different common needs as they arise. What communities of community networkers are seeking to understand is, not community networking as such, but rather what happens to community when it goes online.

### IN DEFENSE OF THE UNDEMOCRATIC

Social processes undergo shifts at particular thresholds of perception. Increasingly, citizens are talking with their governments online. The volume of such interaction is growing enormously. It is now apparent that governance as a social process is about to cross the threshold of just such a shift. Beyond the phase change, the principles of governance that structure political relationships among individuals will be predominantly the same as those that structure online interaction on the Internet. Understanding how and why the Internet expresses a changed social context (a different way of seeing the world) can give us a direct view of emerging new forms of governance.

Well before North America, European politicians began asking, “Why is everybody ignoring us and what has that Internet got to do with it?” One simple answer is that they have become irrelevant to assumptions about the essence of governance that direct the behaviours and interactions of significant numbers of citizens online in society at large. In what is generally felt to be the spaces of political possibility, as the relevance of democratic representation diminishes, other forms of participation in the negotiation of the social contract increase. Absence of participation in the forms of democratic representation is not evidence of apathy. It is evidence of abandonment. What it really signals is the disappearance of consent to be governed in a manner that is not inclusive.

In circumscribing a new phase space of social interaction, the Internet has begun supplying answers to questions raised by the failures in the institutionalization of representative democracy. It should not come as a surprise that those answers are expressed by words that are different from those used to express the democratic process.

As a new social phenomenon, community networking online is a precursor of forms of governance based on self-organizing systems. It supplements democratic processes (which are not going to go away) by adhering to the values of cooperation that govern social interactions in non-zero sum games. The practice of representative democracy is about containing the exercise of the will to power in the context of competition for scarce

resources, the context of zero sum games. When it works, democracy approximates fairer solutions to the problem of knowing who benefits and who pays and what “we” should do about it

To the degree that distributed systems assume cooperation as the basis of relationship before the fact, those systems accommodate fairness up front as a function of self-organization. In effect, if you can resolve some of the problems of daily life (of acting in the polis) through the practices and experience of community online first, what need do you have to abrogate responsibility for action to the more remote “democratic process?” In other words, community networking is about radical shifts in social structure that achieve other processes than reinvigorating democracy.

In that sense, community networking is neither for nor against democracy. Practitioners of community networking can certainly be involved in either defending or denying democracy, but their actions as such have little to do with the core of their practices. They are, however, pointing to the significance of something other than democracy that is shaping assumptions about the nature of governance and its role in the structuring the human condition. If you can, in the majority of your actions, deal directly and inclusively, your need to be represented diminishes.

To take this position is not to abrogate democracy. Competition for scarce resources is not disappearing! But it places democracy in a historical context and questions how a new and emerging context, the context of social networks online, alters the necessary assumptions about its nature and supplements its role. Here is what does not happen, politically, in community online:

- Majority, while it influences the beliefs that shape the social context, does not formally rule.
- While a core group of participants make be accepted as performers of group maintenance tasks, representativeness cannot be imposed on a system that self-organizes.
- Officially recognized social groups are not the arbiters of shared power.
- Appeals to universal principles and instruments of global governance do not work.
- Appeals to grounding the fabric of global cooperation in relations among nations do not work
- The objects of thought, the issues of concern to the body politic are not grounded in physical locality, even where the boundaries of community are defined geographically.

The key unit of organization, political or otherwise, is the individual acting in community. The theory of self-organizing community as a theatre of politics is to trust that ordinary people acting in community are good politicians by virtue of human nature. In open and distributed systems, everyone assumes the functions of politics.

The rules of the game promote certain interests. In non-zero sum games, the rules promote cooperation. Governments do not set the rules of non-zero sum games. They

can, however, influence the climate that sustains them, both negatively and positively. Where the quality of daily life overall depends on the successful application of the rules of non-zero sum games, governments have a responsibility to recognize those applications and to act accordingly in their support. Let no regulator rend asunder that which self-organization has brought together in cooperation.

## CHANGING THE POLICY FORMULATION SYSTEM TO INTERNET MODE

Since the beginnings of the rule of kings, it has been assumed that authority is delegated downward. Constitutional law in Canada is based on that assumption. The idea of the rule of law is more fundamental to the way in which our culture views governance than is the idea of democracy. As we practice it now, democracy assumes the rule of law, and the rule of law assumes sovereign authority. The primary emotion governing relationship to authority is fear.<sup>67</sup>

In a Learning Society, the concept of delegated authority is superseded by the emergent structures of community that well upward from lower states of increasing complexity. The design principles underlying the Internet assume autonomy and assume that the relationship of autonomous individuals self-organizes. The primary emotion governing integrative relationships among autonomous individuals is ecstatic love. There is no reference to authority. It would, however, help if those assuming the mantle of “authority” recognized the utility of principles structuring community in advance.

The problem is that a rule of law based on authority and a rule of law based on autonomy are incompatible. In contemplating the uses of ICTs for changes in governance, it is essential to understand that you cannot make the Internet do what it is not. Its essence opposes the objective of strengthening governance that is grounded in sovereign authority by advancing a “rule” of law that is utterly different. But the Internet has become the primary engine of global economic growth. In attempting to gain access to and sustain that growth, the governments of all nation states are currently underestimating the challenge to the will to power that the Internet represents.

The present discourse in governments on the transformation of governance assumes that relationships among individuals and society are commonly understood. It accepts particular forms of governance as givens, applies technology to them, and asks what difference to practice that will make. In so doing, it avoids issues of transformation rather than accepting the challenge of addressing them. But, if you apply the Internet for purposes of control, you will fail. If you set out to control the Internet, you will turn it into that which it is not and destroy it. The state of being “online” must be defined and understood only in relation to itself.

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<sup>67</sup> Fear - agitation in the presence or anticipation of danger; profound reverence or awe, especially toward God; alarm, misapprehension, distrust, terror.

For example, in contemplating how to deal with documents that have somehow become electronic, the records management profession has returned to first principles via the concepts of “evidence-based governance,”<sup>68</sup> and the management of information as a resource. In so doing, they are not seeing the implications of the Internet as new media on its own terms. They are especially not seeing how the form of the media mediates the information of individual identity, and how it does so without reference to primary cause. The Internet opens up a space of communications in which I imagine myself to have access to an “opening of identity to an understanding of identification itself as a process.”<sup>69</sup> This requires me to participate directly in the construction of the spaces of communication I experience. It is a governance statement to say, “Only connect.”

The maintenance of the “public record” is required to provide “evidence” that I have acted within the framework of the rule of law. But, in online communities of practice, the framework of rules that governs my interaction has nothing to do with the rule of law. It has to do with the “rules” of self-organization. An online community of practice in being is evidence that the participants of that community are operating within the framework of self-organization. The responsibility of an individual to “answer” to a higher authority just isn’t in the equation. However, acting on their responsibility to speak to each other with an authentic voice, rather than to “answer,” creates the harmony that causes the community to cohere over time. Nor, across boundaries, is one community answerable to another. The community of communities also self-organizes.

In evidence-based governance, the record (documentation) is evidence that a delegation of specific authority for action has occurred and of the results that flowed from that action. The need for evidence is predicted on the assumed need to answer to a higher authority. In identity terms, the expression of my “self” exists only by the authority of someone else. The right to tell my story has been delegated to me. But all dynamic systems self-organize by self-reference to internally consistent rules. Those systems must not mean but be. The system in being is the only evidence required that its actions are true. I alone am the teller of my story.

The faith of the records manager in evidence-based governance applies only to circumstances (worldviews) where governance is assumed to depend on delegation of authority to act (i.e. for top-down and closed “systems” of administrative control). But a Learning Society can only be based on the capacities of open systems that learn. Such systems require only trust and self-referential internal consistency to operate. The concept of answering to authority is inimical to their action. I alone am the author of my

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<sup>68</sup> International Records Management Trust. **Evidence-based governance in the electronic age: a World Bank / International Records Management Trust partnership project.** (IRMT website: [www.irmt.org](http://www.irmt.org)) This reference is not meant to disparage the substantial achievements of IRMT in its own context. I refer to it to provide contrast with what I am not talking about. What I do know is that an “electronic record” is not essential to the formation of community online, but that “community” is an essential governance principle in understanding the cultures of networked societies.

<sup>69</sup> Mark Poster. 125.

fate. My actions in social networks are trusted and reciprocated, not because of any authority I possess, but because I embody and express situational authenticity

In effect, we are not going to be able to use the Internet as an instrument of democratic governance. I do not mean that public servants cannot use the Internet in transactions with Canadians. Obviously, they can and do. What I do mean is that the Internet cannot be used as an instrument of management. The Internet substantiates the theory of organizational learning inherent in communities of practice. It will continue to do that, regardless of whatever other objectives you think that you can bend it to. All attempts to “adapt” it to other purposes will go strangely awry.

In connecting online, I can exert an effective form of power only by trusting that you will listen if I tell an authentic story of my self. Such a story does not have facts as such. It has fictions as allegorical performances about identity (i.e. the fictions are self-referential). The person expressed as persona transcends universal politics by means of local poetics.<sup>70</sup> But remember that Lenihan has correctly defined individual identity as a network. The “author” that tells my story has no center. And I have defined community as a network that has no center.

Policy, including ICT use policy, is politics, not poetics. There are both explicit and implicit rules that constrain the political practices of policy formulation and implementation. Those rules shape an institutional structure through which collective decisions are made.

It is a truism of public policy formulation that, “Only by changes in rules [can] changes in patterns of outcomes be predicted to emerge.”<sup>71</sup> Of course, the transition to a Learning Society will bring into operation a different system of governance and an altered model of ICT policy formulation that is appropriate to its circumstances. The trick is that, not only does the content of the rules change, so too does the place where they become operational. In finding useful analogies for understanding the implications of this truism for transition to a Learning Society, think of structure in an Industrial Society as solid and structure in the digital networks of a Learning Society as liquid.

In Industrial Society planning, ICT policy formulation begins by unpacking a solid concept to separate policy into constituent parts, essentially ICT strategies by economic sectors. Then it works on the parts or “outputs” level, hoping that the sum of developmental results at that level will add up to results at the level of desired outcomes. This is a mechanistic approach to strategic planning. Strategies are done in parallel at many levels. Then they are re-drafted in several steps, as the content of higher level drafts becomes visible to policy planners. Horizontal and vertical consistency begins to

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<sup>70</sup> “...what is at stake is the direct solicitation to construct identities in the course of communications practices. Individuals invent themselves and do so repeatedly and differentially in the course of conversing or messaging electronically.” Mark Poster, 183.

<sup>71</sup> James M. Buchanan and Richard A. Musgrave. **Public finance and public choice: two contrasting views of the state.** The MIT Press, 1999, 18.

emerge near the end of the drafting process, when the rules from above grow congruent with the rules from below. The goal of such a process is to reduce uncertainty.

The liquid approach to dynamic policy interaction in a Learning Society<sup>72</sup> will take into account that:

- Self-organizing systems have internally consistent rules – not externally imposed rules. The rules about rules, and about where the rules are found, are different.
- To benefit from the efficiencies of self-organizing systems, the existing way the policy rules are made has to change.

The goal of such a process is to increase fluid adaptation to changing circumstances through learning. Management seeks to resolve exchange problems in whole-part relationships by reducing complexity. Community seeks to mediate integration problems by increasing complexity so that new ways of seeing the problem in context emerge. Complexity informs learning and the community's existence depends on its capacity to learn. Systems that learn are dynamic and open. They are the product of balancing uncertainty at the edge of chaos. Actions that seek to control their unending search for balance kill them.

A changed approach needs to focus first on identifying the higher level rules within which decision making about ICT policy (the rules on the next level down) are set. Then it needs to assist the users of the work of the ICT policy community to change the rules under which it operates. It has to change how making the rules about changing the rules are made, not within ICT, but in the environment in which ICT policy decision-making occurs. This means that the first step, the focal point for intervention in the ICT policy planning process as it exists now, is not in the ICT policy community. It's in the decision-making environment of the level above it.

The tricky part of a changed approach to policy formulation online will be to anticipate a transition to where stating "open systems of governance," while speaking from within the tradition authoritative worldview, will be seen clearly as an oxymoron. The participants will need to notice the point at which a phase change occurs and the existing hierarchies transform into networked structures of interaction. At the point where governments operate in societies that are fully online, the mechanistic concept of "levels" starts to become irrelevant. In effect, you need to change the rules in the old system (where rules are externally imposed to solidify structure) in a way that accelerates the emergence of the new system (where the rules about changing the rules are internalized to create dynamic structures that flow). You need to set free the ICT policy planning community to become a self-organizing system.

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<sup>72</sup> Etienne Wenger. **Communities of practice**. "...learning is so fundamental to the social order we live by that theorizing about one is tantamount to theorizing about the other." 15.

## DEFINING A NEW FRAMEWORK OF ASSUMPTIONS FOR ACHIEVING COMMUNITY ONLINE

As a person becomes fluent in a language of symbols and myth, he or she enters into the community of experience that speakers of the language share. There is no community without communication and no communication without community.

Mark C. Taylor<sup>73</sup>

The rules that pattern the behaviors of a community relate directly to the immediate circumstances of its relationships to the ecology it inhabits. Community is nothing more than an agreed set of rules for behaving consistently in solving problems of daily life<sup>74</sup> in a particular locality or common set of circumstances.

When corporations and governments focus on electronic commerce as the driving force in adapting to social transformation, they turn a blind eye to the need to understand how and why community is realized online. This creates a dilemma in their understanding of the consequences of the transition to a Learning Society for the transformation of governance. Where are the public policy agendas that identify the need to create that presence of community?

To be consciousness of the role of self-organization in community networking practices gives enormous power to individuals who engage in realizing the benefits of community-based action through electronic means. That experience of engagement provides for balance in the relationship between technological change and social change. Community development online tempers the heat of using new ICT tools by plunging them into the fluidity of social process.

The presence of community online implies a different way of doing things (that is to say, a different set of “technologies” with a different set of cultural practices in the understanding of their use). Community fosters diversity because it integrates autonomy and interdependence. It reinforces qualities of relationship that are the antithesis of the control that the players of zero sum games seek to achieve. Therefore alliances in the name of management, where the needs of the private sector and governments take first precedence, will, by reflex, seek to inhibit the emergence of community. They will talk about achieving the Learning Society but block the primary means of making it real.

Because we know we can, we use tools to shape and alter the worlds around us. Then we, in turn, are altered by our changed relationships among those altered worlds. Those

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<sup>73</sup> Mark C. Taylor. **The moment of complexity: emerging network culture.** 212.

<sup>74</sup> Social Appropriation.... Beyond their functional uses, ICTs can contribute to development when there is social appropriation of Internet resources. Social appropriation occurs when Internet resources help transform daily life by contributing to the solution of concrete problems. Evidence of appropriation is not found in the use of ICTs, but rather in the changes that they have brought about in the real world. Only when Internet resources become useful tools for transforming everyday life do ICTs reach their full development potential. (Ricardo Gomez and Juliana Martinez. **The Internet...Why? And What for?** Ottawa, IDRC, 2001, 6-7.)

changes in context then suggest other possibilities for the way things might be done. That altered perspective creates possibilities for the emergence of new tools. Because what ICTs do is mediate communications patterns and model or anticipate the consequences of behaviors, their relationship to us has become predominantly social, rather than mechanical. Not every one has internalized the consequences of this shift.

The active practitioners of community development online are following a path of re-defining the application of values and first principles onto "ground" that is new. Some might call that cyberspace<sup>75</sup> and imagine it to be a frontier. But it is not. There are no conquerors or colonizers. In fact, there is no "space" in cyberspace. In thinking of it that way, they apply familiar spatial metaphors to get themselves [into?] zones of possibility where the ecologies of relationship then appear completely unfamiliar. In such ecologies, good practice evolves, is only learned experientially through specific interaction, and dynamically alters in its application.

It is apparent to me that a political economy of ideas is completely dependent on individual autonomy. Only a fully autonomous individual can commit to interdependence. What has changed in the culture is precisely the autonomy of the individual to self-organize their identity – to tell their own story. But that has consequences for social relationship that we haven't even begun to address:

- Stafford Beer<sup>76</sup>, acting as an architect of reform via systems thinking in Chile, postulated that human channel capacity for what he called "variety" was limited. And he therefore designed "variety attenuators" into his social system planning. I think he was wrong. I think we have no idea what our capacity for variety may be and that we are only beginning to explore that question. Having set the imagination free in online, we must not let fear or numbness circumscribe its limits.
- Freedom (or autonomy to self define identity) only makes sense to me as the freedom to commit. Therefore there is a logarithmic relationship between liberty and responsibility. The greater my freedom and its concomitant commitments, the greater the magnitude of my responsibility. In networks of conversation, answering for the consequences of responsible action occurs through authenticity of the voice in relation to self-organizing principles, never through reference to authority<sup>77</sup>.

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<sup>75</sup> I am no longer comfortable with the idea of cyberspace (apologies to William Gibson). The "cyber" part of the word comes from governance in the sense of mechanistic feedback systems, and the reference to "space" supplies an inadequate spatial metaphor to the locus of our collaborative practices online. Supplying dimensionality just confuses our sense of what is happening to our relationships in processes of collective learning.

<sup>76</sup> Stafford Beer. **Diagnosing the system for organizations.** Wiley, 1985.

<sup>77</sup> As Henry McCandless says, "We have confused responsibility, the obligation to act, with accountability, the obligation to answer for responsibilities – which means having authorities report their intentions and their reasoning, and later what resulted from their actions." Henry McCandless. **A citizen's guide to**

- Nothing inherent in the will to power of rulers governs the choice that I must continually make about my relationship to their action. What I choose to believe is ever and always my choice. Responsible action demands that I can never transfer responsibility for that choice to others<sup>78</sup>. First, it is our own fears, not enslavement, that make us prisoners. And in the cultures of networked societies the structure of social relationship is a structure of commitments. This is apparent to me as a fact and not a moral principle.

In the cultures of networked societies, my intention becomes a far bigger issue in defining my authenticity than my authority. Management literature is preoccupied by the role of leadership. But then, of course, it would be. The authors and their audiences remain convinced that “He who pays the piper calls the tune.” When we have open access to participation in systems that learn, we diminish our need for systems that seek to organize us. In the context of non-zero sum games (not the context of the will to power), if you ask the question, “Who benefits and who pays?” it becomes clear that the piper’s costs are distributed among all participants and can be paid in different currencies. The tune that community sings is a function of its aggregated reactions to its experiences. When everyone involved is paying the piper, don’t sing off key.

The structural problem of supplying mechanisms for accountability really only emerges where actions in human systems are fully constrained by factors, such as delegation of authority, that are believed to be external to those systems. In reality, the attempt to constrain action by reference to authority ignores the fact that dynamic human systems as communities don’t organize that way. Self-organization is already the product of a climate of fairness. If we are not acting fairly and authentically in the exercise of our responsibility then nothing self organizes.

In community, since responsibility is everything, we never get to the point where accountability becomes an issue. Even constraints applied by authority’s reference to the common good or the need for representation are arbitrary, because the communities of practice that are affected by such demands may decide to accommodate or ignore any and all externally defined constraints that don’t fit with their experiences overall. Whether or not authority clearly states its intentions, communities of practice online will know them quite fully and will act accordingly.

The presence of community is the critical component of the structure of social networks and political economy in a Learning Society. It is the essential quality causing dynamic self-organizing social networks to coalesce. And it is the existence of dynamic self-

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**public accountability: changing the relationships between citizens and authorities.** Victoria, BC, Trafford Publishing, 2002, 6.

<sup>78</sup> “It is we, given that the Mind can provide imaginary representations of impossible worlds, who ask things to be what they are not. And, when they carry on being what they are, we think they are telling us no, and setting limits for us.” Umberto Eco. **On being.** In: Kant and the Platypus: essays on language and cognition. Vintage, 2000. 56.

organizing social networks that cause perpetual innovation in systems of production and consumption. A Learning Society, by definition, seeks and needs far more community<sup>79</sup> and far less management and governance than we have now.

- Community is about integrative social relationships, not locality. As social networks of small groups, communities are primarily concerned with reciprocity in addressing common objectives and needs. Community can emerge whenever groups of autonomous individuals ask themselves – at this moment, what can we do to work together?
- Community is not caused. It emerges out of a wider context of social networks, and it sustains itself in interaction with that wider context. Community is a collective expression of how realities in specific contexts are being experienced and shared.
- Community is not a static state of being. It's a dynamic state of becoming that operates through language. A community is a network of conversations. It's when the language fades to silence that the community is gone, not when a particular set of members depart.
- The experience of community is not objective. It's relational. Because the networks of conversation become more visible, the relation among individuals and their communities change when community is realized online. An online community is aware of itself as a medium that expresses community.
- Effective participation in community is a function of authenticity, not authority.

To avoid technological determinism in thinking about achieving community, it is essential to remember that the networks, and especially the networks where machines have agency, are inherently social. It's the community that's the network, not the technology. In making the machines convivial, we are still connecting or linking people to people not machines to machines. The online context specifically enhances self-organizing processes in social networks. But, at the same time, because it is a system of human-machine interaction it gives hugely enhanced access for all its agents and participants to the rules that structure it.

Every agent and every participant “on” a system now knows what that system knows. Because of this inherent characteristic of dynamic self-organizing systems, people own the communities they inhabit in a powerful new way. This has one interesting economic impact. In a networked economy, the interactive and informed association of suppliers

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<sup>79</sup> Any community that shares a "world" is necessarily bound into a network of responsibility. Without the continuing support of a community, any world (that is, any space of being) will begin to fall apart. If cyberspace teaches us anything, it is that the worlds we conceive (the spaces we "inhabit") are communal projects requiring ongoing communal responsibility. (Margaret Wertheim. **The pearly gates of cyberspace**. New York, Norton, 1999, 304.)

and consumers that informs a market works best if it becomes a community. When all participants in a market approach perfect information about price, that market approaches behaving as a community of practice. What would formerly have been seen by the business that supplied it as merely its “market” is now being revealed as a community of practice that is owned by all the participants involved in knowing its operations including the consumers that demand its products.

To put it another way, while price regulates competition, the market as community regulates cooperation. In self-organizing dynamic systems, that which separates and that which integrates are not binary opposites.

If the foundations of reciprocity are solid in thousands of functioning communities, any wider society that coheres from their socio-political and economic relationships is also functional. At the “world” level in global networks, this surfaces a political economy of ideas, not of ideologies. But the composition of this new world is not unitary. It is pluralistic<sup>80</sup>. In peer-to-peer networks, where any can connect to any and often will, nation states and international agencies have limited capacity to modulate the signals that inform the behavioural responses of communities to the many worlds they now freely inhabit. Also the capacity for them to create new worlds at will is growing rapidly. This is not chaos. This is certainly not nationalism. It is just different. Chaos only occurs as a consequence of reaction to that difference.

Many online communities come alive fast, and die young,<sup>81</sup> but in their brief span those communities of interest and of practice behave more coherently in relation to their social ecologies than traditional communities of place. Each member's actions are transparently linked to the pattern of collective behavior so the accountability for responsibility is explicit and revealed. The community as self-organizing dynamic system can shift its actions and membership in relation to its internal rules and remain coherent. The equilibrium of open and dynamic systems is not an absolute or a stable state. Every community is always continuously emerging out of a wider context of social networks, and it sustains itself in interaction with that wider context. Community is a collective expression of how realities in specific contexts are being experienced.

Of course, the situating of experience in a “reality” that is augmented or virtualized may qualify the way in which practices evolve through learning. But it is, none-the-less,

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<sup>80</sup> But what about the view that globalization is a kind of cultural conquest? ...Where governments reflect the preferences and beliefs of most citizens, democratically or otherwise, and where those preferences call for cultural distinctiveness and non-western values, economic integration does not militate against diversity, least of all against religious diversity. In the west, globalization has been running at full power for years. Has it mashed the United States, France, Italy, Germany, Sweden and Japan into a homogeneous cultural putty? It has not, and there is no reason why it ever should. (“Is globalization doomed?” **The Economist**, September 29, 2001. p14.)

<sup>81</sup> My guess is that we'll find the distribution of successful attempts to achieve community online follows a power law (20% of all attempts will satisfy 80% of human needs?). That could mean for one success in achieving community start five networks, and be prepared to abandon four.

experience. Reality is as reality does. Or, to put it another way, the reality of an experience has no particular default setting. The epistemological fact<sup>82</sup> that reality always was optional has become accessible to considerable manipulation by any one. Ultimately, it will not be the getting there, in the design of collaborative software for the creation of spaces for shared experiences that makes the big difference. It will be the being there. This will give enormous power to those individuals who, as participants, can effectively augment the spaces of shared experience to reciprocal advantage.

## BECOMING CANADIAN ONLINE: SELF-ORGANIZING GOVERNANCE IN SOCIAL NETWORKS CONNECTED BY ICT USE

“And above all: be more Canadian than ever. The answer to the globalization of practically everything isn't to join it. It's to declare ownership of your own corner.”

Peter Gzowski<sup>83</sup>

I have now defined or “unpacked” those lessons learned in some detail, and then I have applied them in contrast with conventional senses of governance. I can now summarize the case for advocating community networking as radical practice that supports beneficial socio-economic and political change by gaining greater community autonomy over actions that open up the processes of community development online:

- As the structures of governance become self-organizing, political power shifts away from vertical control and toward the horizontal distribution of the functions of governance across networks of interaction. Dialogue about any political issue can and does cause combinations of communities of practice and of interest to form autonomously inside the framework of possibilities that any issue affects.
- The purpose of the Internet is to sustain interaction among open and self-organizing social systems. If you apply the Internet for purposes of control, you

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<sup>82</sup> “It is perhaps not a surprise that photography developed as a technological medium in the industrial age, when reality started to disappear. It is even perhaps the disappearance of reality that triggered this technical form. Reality found a way to mutate into an image. This puts into question our simplistic explanations about the birth of technology and the advent of the modern world. It is perhaps not technologies and media which have caused our now famous disappearance of reality. On the contrary, it is probable that all our technologies (fatal offsprings that they are) arise from the gradual extinction of reality.” Francois Debrix, translator. **Photography, Or The Writing Of Light**, Ctheory 4/12/2000. A Translation of Jean Baudrillard, "La Photographie ou l'écriture de la Lumière: Litteralite de l'Image," in *L'Echange Impossible* (The Impossible Exchange). Paris: Galilee, 1999: pp. 175-184.  
[http://www.ctheory.net/text\\_file.asp?pick=126#note1](http://www.ctheory.net/text_file.asp?pick=126#note1)

Also, “The world’s effect on the mind is a function of the relationship of the knower to that world. Concepts do not have referential or objective properties but rather *interactional properties* that index the position of the knower. There is no God’s-eye view of reality for human beings.” Bradd Shore. **Culture in mind: cognition, culture, and the problem of meaning**. New York, Oxford University Press, 1996, 333.

<sup>83</sup> Peter Gzowski’s advice to Maclean’s Magazine, published in the Globe and Mail, March 31, 2001.

are working contrary to its design and you will fail. On the other hand, what a successful community does online fits with the way that things are done in a society structured in large part by human-machine symbolic interaction.

- The pattern of social organization that emerges in this new society is driven, not by “information,” but by learning. In self-organizing systems, the structures that emerge are based on a few simple rules, rules that are internal to those systems and rules that shape how those systems overall learn. Since world level problems are complex, we all need learning far more than we need control.
- Acculturation is the content of any dialogue on development. To be “in” a culture is to experience a dynamic process. To transcend several cultures intensifies the dynamics. In any cross-cultural interaction, both the supposed senders of a message, as well as the receivers acculturate. There is no one point of view that knows best. No one who “brings” the Internet to a society, or country or community will remain unaltered by what they have done.
- “Community” is the most effective metaphor we now have for understanding the practices shaping the new self-organizing forms of governance. In daily life online, achieving community is a primary goal of social interaction. A Canada that has become a learning society will be a community of communities, and its shape will shift dynamically, governed by what the communities of practice and of interest that compose it are experiencing.

I’ve said that the idea of community stands in opposition to the idea of administrative management, and that self-organization is a form of governance. The Net sustains certain types of social networks over others. The qualities that describe the zone in which self-organizing online community as a new form of governance will operate include; fluid, experiential, open, contingent, unstable, uncertain, and living<sup>84</sup>.

The worldview that created the Internet does not stand in opposition to democracy. It merely ignores it. Democracy as practice does not allow for self-determination in the public sphere, only in the private sphere. The Internet’s functionality depends on the distinction between a public and private self being meaningless. On the Internet, it is not that “The People” constitute the source of political authority. The person is sovereign unto his or her self. What is essential is the self’s capacity to openly relate, to connect one-to-one, one-to-many, or any-to-any.

Identity, at all levels, is a network of networks. The Internet does not enclose the formation of identity into spheres of influence with externally determined rules. Nothing external to experience mediates the relationship of self and other, between the individual

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<sup>84</sup> “Any biosphere expands the dimensionality of its adjacent possible, on average, as rapidly as possible.” Stuart Kaufman, **Investigations**. Oxford University Press, 2000. 151. In effect, a dynamic system is a living system if it follows Kaufman’s law.

and participation in social networks. The rule is – love it or leave it. What we have linked together let no sovereign authority put asunder.

To attempt control is to seek to close the system's autonomy to act, and to limit the individual's capacity within it. Whereas, in the Learning Society, the capacity of communities to learn depends on the degree of openness (i.e. unboundedness) they can achieve. Either they self-organize, or there is no community, and therefore no capacity to learn. To what goal does the "culture" ascribe? It depends on what is paramount. If you want control, you will be operating in the competitive context of zero-sum games. If you want learning, you will be operating in the cooperative context of non-zero sum games. In that zone, there is one absolute. Membership is agreement to participate within the framework of the internal rules that structure relationship. Either you are ON the net, or you are not. Your choice!

All nations, including Canada, are in transition to becoming Learning Societies. But, there is not a single good example of national capacity to anticipate the consequences of the use of ICTs for development from inside the perspective of ICTs as used.<sup>85</sup> In fact, it is fair to say that Canada is currently attempting to export experience of transition to developing countries that "Canada" collectively does not have. That would require collective insight into the impact that increasingly high levels of social and cultural diversity are having on national identity. That would mean that the same consensus of self-reference shaping individual identity would have occurred in the shaping of national identity. It's possible that's where we are headed. But we are not there yet.

At the level of participation in the world development community's debate on the uses of ICTs for development, Canadian communities themselves, not governments, must speak to their experience. The people who are learning how to use community networking to defend the electronic commons and to support radical practice in social change at the grassroots level know as much about the consequences of living with the impact of transition to networked economies and learning societies as anyone. The people who are facilitating online interaction in communities of practice know as much about how organizations learn in a Learning Society as anyone. But what those groups know has rarely been contributed effectively to either national or supranational strategic planning.

Understanding the uses of ICTs for development involves having a national capacity to anticipate the feeling or texture of what life will be like in a learning society. The significant lessons for national ICT strategies emerge from local experiments in using connectivity to alter the patterns of daily living in specific communities. Grassroots Canadian experience is directly relevant to addressing the task of bridging the digital

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<sup>85</sup> "Clearly, we need an open dialogue between politicians and the public, and between public servants and politicians, to ensure that the implications of the electronic world for our democratic institutions and processes are understood and dealt with constructively. And I know that that dialogue is not taking place in Canada today." David Zussman. **Governance in the public service: how is technology changing the rules?** Keynote address: Commonwealth Centre for Electronic Governance Seminar, Integrating government with new technologies: how is technology changing the public sector? Ottawa, February 25, 2002, 6.

divide by leaping off the bridge. The real “capacity” that Canada has for export is the experience of applying connectivity to improve quality of life in community under conditions of local cooperation and trust. In other words, there is a particular fit between the explosion of use of ICTs for development and the culture of Canada. But it is high touch, not high tech, that is making Canada one of the most connected nations on earth.

Even now, there is no cooperating set of agencies in Canadian society, and few transparent processes, that allow for gaining a comprehensive view of the socio-economic impact of our own transition. In spite of that lack, Canadians for their own reasons are close to achieving the stated political goal of being “the most connected nation on earth.” They have jumped off the bridge and have found the water to be just fine once you get in it. The learned capacity at the local level across Canada is enormous. Significant lessons for national strategies can emerge from examining local experiments in using connectivity to alter the patterns of daily living in specific communities. Through the practice of self-reference, Canada’s cultures have learned how to float in the networked economy.

There is an informal and fluid global community of community networking associations that synergizes our collective energies, sometimes described as the “community networking movement.” This movement, as is true for its constituent members, is purely a consequence of the Internet’s existence and therefore governed by the rules of self-organizing systems. It occupies the leading edge of the tens of thousands of organizations that constitute the powerful and new phenomenon of “social movements on the Net.”<sup>86</sup>

Currently, I am a happy participant observer<sup>87</sup> in some of British Columbia’s examples of the community networking movement; the Victoria Freenet Association, the Pacific Community Networks Association and BC3. Since, in Canada, even marginalized social groups are often very well connected or rapidly headed that way, participating in the activities of BC’s community networking associations is and will continue to be an eye-opening experience. There are things going on here related to community control of broadband that seem to me to be as good as it gets anywhere on earth.

Community networkers are motivated by a powerful sense of urgency and isolation. Our experience is that the prime corporate carriers of telecommunications and all levels of government are not going to accept the degree to which broadband Internet access has become a public good. We know what their agendas are – in a period of rapid transition, they are concerned, first of all, to survive, just like us. When push comes to shove, they will use what they know, which is authority, not the distribution of functions in networks, to try and hold back the flood of change.

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<sup>86</sup> Osvaldo Leon, Sally Burch and Eduardo Tamayo. **Social movements on the Net**. Quito, Agencia Latinoamericana de Informacion, September, 2001.

<sup>87</sup> In fact, as a consequence of writing this essay, I discovered I “inhabit” community networking associations at all “levels” of the spatial hierarchies of governance – local, regional, provincial, national and international. To be forced to wear that many “hats” is a condition of my dependency.

But to engage with them directly takes us onto their “turf,” and turf is a hierarchical concept. Whereas community networks live in a networked world of distributed functions. There are labels we have to wear to get by in the present - while working for the emergence of a more positive future. National and regional community networking organizations only use "association" status as camouflage for their real roles as connectors of activists working for autonomous community networks. They survive as communities of community networkers (as online communities of practice) only so long as they have utility for the people that choose to link with and through them.

But it's just not Canadian to appear overtly political. While deeply committed to social action, these groups, apparently unlike Daniel Pimienta's report from MISTICA on concerns in Latin America, are suspicious of the utility of clearly stating social action as a goal. They do not want to “explicitly claim that we mean to use the technology as a tool aiming at the transformation of societies.”<sup>88</sup> They have “reflected” on social change. But they are reluctant to express those reflections because, and this is a guess, they might appear inflammatory in the pragmatic reality of their relations with existing institutions. To stand their ground in defense of a social change agenda might divert their attention and very scarce resources from the real battle - gaining hands-on control of local and regional communications infrastructure in a fluid situation where monopoly is still amorphously present but rapidly weakening.

While I do agree with them that confrontation is the very last resort of radical struggle, I'm not sure I fully understand or agree with their reluctance. I believe it is socially irresponsible to leave a social change goal unstated in a situation where individual participation and group action has social consequences. In Canada, radical change agents, if they cannot be co-opted or bankrupted, are merely further marginalized. There are countries in which the consequences are more drastic. To be fair to new participants in community networking associations, it should be clear up front that participation in action to increase capacity for applying ICTS in the service of local development is radical practice for social change and not just access to “tools.”

Recently, Gary Shearman and I formed the Vancouver Island Open Network Society (VION)<sup>89</sup>. Its objectives are a useful example of what I'm trying to say here. We wanted objectives that covered both community based socio-economic and technological (or "infrastructure") development, but also stated an intention to work with individuals to change ICT use behaviour. Here's what we said:

Recognizing that informed uses of Information and Communications Technologies (ICTs) are important to Vancouver Island's development, and that community based action to evolve their use in relation to local needs is essential, the Vancouver Island Open Network (VION) will:

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<sup>88</sup> MISTICA

<sup>89</sup> <http://bc.cap-pac.org/vion/>

- Promote the use of advanced network technologies and online services for socio-economic development of communities on Vancouver Island,
- Promote cooperation in the growth of open access network infrastructures and community based networks that will provide reliable, high bandwidth last mile connectivity at fair prices for all communities on Vancouver Island,
- Work to transform the way in which citizens of communities on Vancouver Island interact with one another, with public and private institutions, and with the world through their use of ICTs.

In stating those objectives, we are seeking to uncover cooperative models of community development online that increase the capacity of communities to design their own futures. The common need that brings us together, the “why,” the end to be achieved, is social and economic development and change in governance in specific communities. But what is it that we are learning by acting more effectively in the context of online networks about increasing community control of socio-economic decision-making? How and why does greater local control increase the well being of communities and therefore of society overall?

If we start collaborating by stating our conscious intention to act within the context of that assumption, then the questions we ask ourselves about what we are learning become different from those of the politics of mistrust. But community decisions on use are always going to be a governance issue, as well as a technology issue. We cannot untangle the two threads.

The problem is not to appropriate the Internet for social purpose. The problem is to struggle to retain the social purposes that already exist within it. Those who are committed to human development already hold the high ground. Just assume that we own it socially already, that the very moment its spaces are considered to be enclosed the “tool” ceases to exist, because its very purpose is new open networks of social interaction. But, the danger inherent in struggle is that, inevitably you become that which you oppose.

For example, some might challenge me that my establishment of Industry Canada as the boogeyman in this essay offends my espousal of all that is open, transparent and self-organizing. That would be fair. In my defense I would note two things. I have stated I would be more than happy to be proved wrong by changes in behaviour in that gray zone where ministers and deputy ministers collide. And I have stated that such a change will, in fact, occur, but as a phase change and not through any managed process. On the other hand, if a learned change were actually to occur, then I would be more confident than I am in the eventual success of the Government’s existing “e-governance” agendas.

So too, my own reluctant choice for an anticipated future is to wait patiently for the inevitable departure of the voices of authority. But, in the passive resistance of waiting patiently, nothing should stop us from confidently expressing that the goal is change.

Nothing should stop us from challenging those who see us as merely one more marketing opportunity to identify how their approach to service furthers that goal.

In fact, responsible citizenship in an information society and a knowledge-based economy requires that we clearly state our intention to work for change up front, in order to eventually assess and share what we have learned by acting on that intention. We can and must say what it is that we do. We share what is being learned about practices that increase community capacity to use ICTs for greater control of their own socio-economic development.

Do nothing to imperil the capacity of communities (especially communities of practice related to community networking!) to self organize. Networks create synergies, not fragmentation. If you feel a need to connect, then connect. Act on that instinct. We need as many communities of community networkers as we can get.

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